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JAMES W. COTTRELL, Technical Editor
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GEOFFREY GRIER, Art Editor

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Telephone.....Sherwood 1424, Philadelphia

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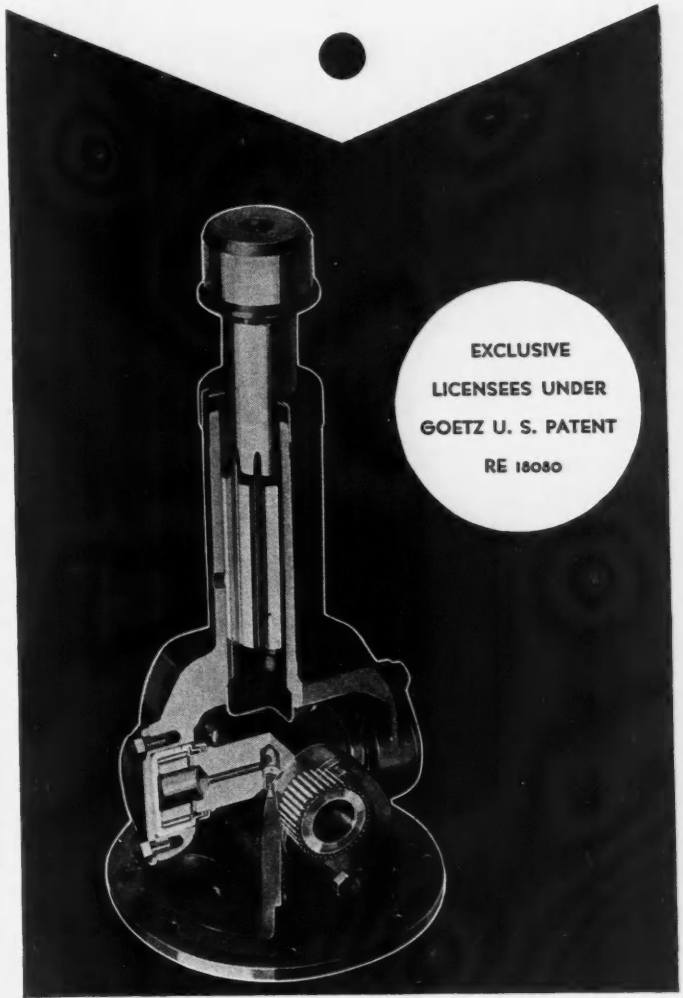
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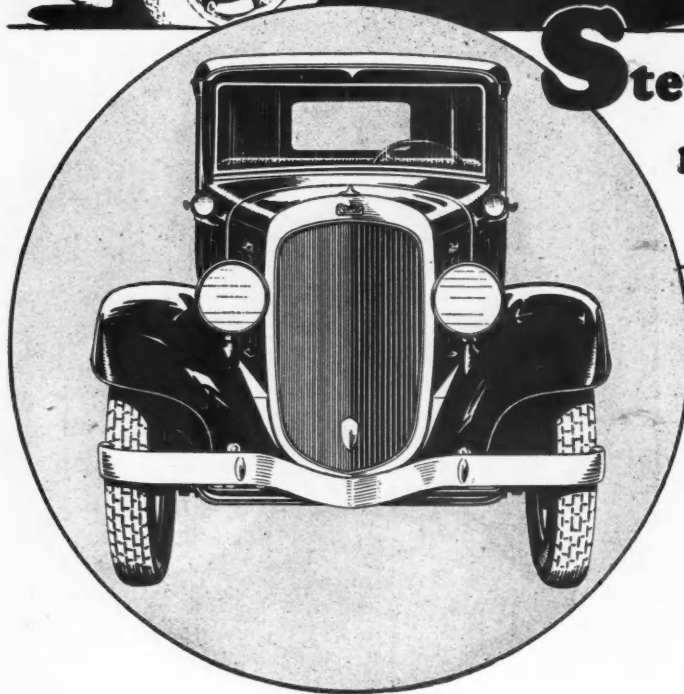
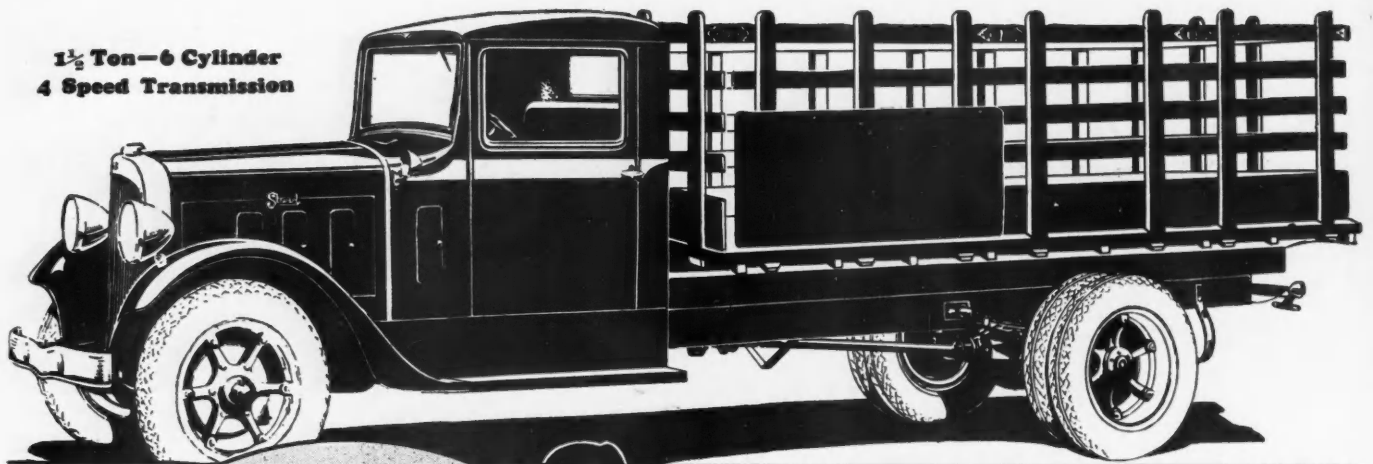
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The Code of Fair Competition of the Trucking Industry

AS APPROVED BY PRESIDENT ROOSEVELT, AND EFFECTIVE FEBRUARY 25, 1934

ARTICLE I—PURPOSES

To effectuate the policies of Title I of the National Industrial Recovery Act, the following provisions are established as a Code of Fair Competition for the Trucking Industry and shall be the standard of fair competition for that Industry and shall be binding upon every member thereof.

ARTICLE II—DEFINITIONS

1. The term "Industry" as used herein means the transportation of property and all services ordinarily incidental thereto in connection with any trade, industry or business to the extent that such transportation is over publicly used roadways by:

A. Vehicles for hire, with the following exceptions: (1) Vehicles used principally for the transportation of used household goods, used office furniture and used office equipment shall be exempted, except as otherwise in this Article provided, from all provisions of this Code, pending a public hearing and determination by the Administrator on a date to be set by him prior to June 15, 1934.

(2) The aforesaid exemptions provided in this Article shall apply to vehicles engaged in transportation of used household goods, used office furniture and used office equipment even though they may occasionally transport other goods, if the revenue derived from such occasional transportation shall not exceed ten (10%) per cent of the total revenue derived through such vehicles; and provided that any such vehicles, when engaged in such occasional transportation: (a) shall not be operated in violation of the provisions of this Code dealing with wages and hours, (b) that the rate charged for all such occasional transportation shall be not less than the lowest rate on file with the appropriate Code Authority of the Trucking Industry for similar services in the particular locality, and (c) that Article IX, Section 1 of the Trucking Code dealing with freight bills, shipping orders and bills of lading shall be conformed to.

(3) At the hearing provided for above, evidence shall be presented to the Administrator and he shall thereafter make a determination in respect to the modification or extension in whole or in part of such exemption provided for in this Article. Said determination by the Administrator shall become effective as a part of this Code.

(4) Pending the determination by the Administrator as provided for above, any one claiming exemption within the terms of this Article hereof shall register, in such form and manner as the Administrator may determine, either with the Code Committee or the Code Authority of the Household Goods Storage and Moving Trade or with the appropriate Code Authority established under this Code. Any operator claiming exemption under this Article shall file his registration in triplicate accompanied by a certified statement supporting his claim for exemption, one copy of the same shall be furnished to the other registration agency and the third copy shall be furnished to the Administrator.

(5) The National Code Authority shall appoint two representatives who, with two representatives similarly appointed by the Code Authority of any related trade or industry, shall have the power to review and adjust all differences of the jurisdiction of this Code and if they are unable to agree, the matter shall be referred to and determined by the administrator.

(6) The authorized representatives of the Code Authority of the Household Goods Storage and Moving Trade shall have access to the registration lists of this Industry, provided reciprocal authority is granted to the Code Authority of this Industry to have access to the registration lists of that Industry.

B. Vehicles not for hire except:

(1) To the extent that such transportation is subject to any other Code of Fair Competition approved pursuant to Title I of the National Industrial Recovery Act:

(2) Where a farmer is transporting his own property or produce to primary markets or his own supplies on return, or cooperatively transporting to or on return from primary markets, the property produce or supplies for neighboring farmers for which he does not receive compensation other than by the exchange of services; and

(3) The Trucking operations of bona fide farmers' cooperative associations to the following extent. When bona fide farmers' cooperative associations carrying on trucking operations in their own vehicles at cost are engaged in transporting the property or produce of such associations or of its farmer members to primary markets, or are engaged in the return transportation of supplies purchased by such associations or farmer members thereof, and are not engaged in transporting for hire or serving the general public, then such associations shall be exempt from all provisions of this Code except: (a) the provisions of Article IV dealing with industrial relations; (b) the provisions of Article V dealing with maximum hours of labor, minimum rates of pay and conditions of employment; (c) the provisions of Article VI, Section

(Editor's Note—Reprints of the Trucking Code as published in the following pages will be sent free upon request to any Commercial Car Journal reader.)

4. dealing with registration; (d) the provisions of Article III, Section A, Subsection (1) (b), dealing with reporting; and (e) the provisions of Article III, Section I, Subsection (1) (1).

2. The term "employee" as used herein includes any person engaged in any phase of the Industry in any capacity however compensated except a member of the Industry.

3. The term "employer" as used herein includes any employer in the Industry.

4. The term "member of the Industry" as used herein includes any individual, partnership, corporation or other form of enterprise that is engaged in the Industry as an employer, and any person engaged in the Industry who drives a vehicle on his own behalf, whether or not he employs anyone else in connection therewith, and any person engaged in the Industry who leases or subleases a vehicle to another or the use thereof as a part of a trucking service if he retains responsibility for the employment of drivers or for the maintenance and repair of the vehicles, whether or not he retains responsibility for the safety of the property transported, or receives compensation for the transportation of such property.

5. The term "for hire member" as used herein means any member of the Industry who receives compensation or remuneration directly or indirectly for the transportation of property (a) of others, or (b) of his own property for sale or disposal when the principal purpose or effect of such sale or disposal is to obtain revenue by such transportation. It includes, but is not limited to any member of the Industry who leases or subleases any vehicle or the use thereof to another as a part of a trucking service if he retains responsibility for the employment of drivers or for the maintenance and repair of the vehicles, whether or not he retains responsibility for the safety of the property transported, or receives compensation for its transportation. Such trucking service shall include the transportation of automobiles as merchandise operating under their own power.

6. The term "not for hire member" as used herein means any member of the Industry not included in the definition of "for hire member."

7. The term "vehicle" as used herein includes any vehicle used in the Industry, regardless of how propelled.

8. The term "shipper" as used herein shall include both consignor and consignee.

9. The term "State" as used herein shall include the several states of the United States and the District of Columbia.

10. The term "Natural Division" as used herein means a grouping of members of the Industry resulting by reason of the nature of the service performed and recognized as such a Natural Division by the National Code Authority because of Code problems peculiar to such group.

11. The South shall include Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, Kentucky, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas, New Mexico and Arizona. The remaining portion of the United States not included above shall be referred to as the North.

12. Population for the purposes of this Code shall be determined by reference to the 1930 Federal Census.

13. The terms "Act" and "Administrator" as used herein mean, respectively, Title I of the National Industrial Recovery Act and the Administrator of Title I of said Act.

14. The term "National Code Authority" as used herein means the Code Authority having supervision over the Industry in the entire United States, as hereinafter provided.

15. The term "Regional Code Authority" as used herein means the Code Authority having supervision over interstate operations between two (2) or more states, as hereinafter provided.

16. The term "State Code Authority" as used herein means the Code Authority having supervision over one area in a region, as hereinafter provided.

17. The term "Divisional Code Authority" as used herein means the Code Authority having supervision over a natural or area division of the Industry within a state area, as hereinafter provided.

18. The term "Trade Agreement" as used herein includes trade practice agreements and agreements formulated by members of the Industry tending to liberalize labor conditions as contained in the Code. Which agreements have been formulated by members of the Industry under the provisions of this Code and in accordance with rules and regulations with respect thereto made by the National Code Authority.

ARTICLE III—CODE ADMINISTRATION

A. Code Authorities

To further effectuate the policies of the Act, the following agencies of the Industry are hereby created to cooperate with the Administrator in the administration of the provisions of this Code: (1) National Code Authority; (2) Regional Code Authorities; (3) State Code Authorities; and, in addition, (4) such Divisional Code Authorities as may be created. The Administrator may appoint on each or any Code Authority, three non-voting members. When appointed, such members shall receive all notices and be entitled to sit at all meetings of the Code Authority on which appointed.

(1) National Code Authority

Organization: The National Code Authority shall consist of one (1) member from each region as hereinafter provided. The voting members of the National Code Authority shall be elected by the members of the Regional Code Authorities. In such election all Regional Code Authorities shall be entitled to an equal number of votes.

Powers and Duties: The National Code Authority shall be charged with the general administration of the Code and shall have power to appoint such agents, committees and employees as it shall deem necessary to the proper administration of the Code and shall have the following specific powers which it may, subject to review by the Administrator, exercise through or delegate to any Regional, State or other Code Authority provided for in this Code.

(a) To adopt by-laws, rules and regulations governing its procedure in the administration and enforcement of the Code, furnishing to the Administrator such true copies thereof together with minutes of meetings when held, and such other information as to its activities as the Administrator may deem necessary to effect the purposes of the Act.

(b) To require periodical reports from the members of the Industry and from the various Code Authorities, with respect to revenues, expenses and other charges, wages, hours of labor, conditions of employment, number of employees, and other matters pertinent to the purposes of the administration of this Code. In addition to the information required to be submitted to Code Authorities, there shall be furnished to the government agencies such statistical information as the Administrator may deem necessary for the purposes recited in Section 3 (a) of the Act; provided that nothing in this Code shall relieve any member of the Industry of any existing obligations to furnish reports to any government agency. Bona fide farmers' cooperative associations shall be required to report to Code Authorities only in such manner and form and to give such information as may be provided for in rules governing such reports, which rules shall be formulated by the National Code Authority with the advice of a representative of such associations to be named by the Administrator, and with the approval of the Administrator. The specific intent of this latter requirement is to secure basic information relative to the character and volume of trucking operations conducted by farmers' cooperative associations, such information to be secured at the least possible cost to said associations.

All individual reports of members of the Industry shall be kept confidential and only general summaries thereof may be published.

(c) To recommend to the Administrator within ninety (90) days after the approval of the Code, systems of uniform accounting and reports, which upon his approval, and subject to such notice and hearing as he may prescribe, shall be used in carrying out the provisions of this Code.

(d) To make studies of the advisability of requiring evidence of responsibility or insurance with reference to public liability for injury to persons or property and with reference to security of property transported by members of the Industry, and to report and recommend thereon to the Administrator within six (6) months after the effective date of this Code.

(e) Subject to the rules and regulations prescribed by the Administrator, to receive complaints of violations of this Code, to make investigations thereof, and to adjust such complaints or bring to the attention of the Administrator any information relative to violations with recommendation with respect thereto.

(f) To function through such trade associations and other agencies as it deems proper and through the Regional, State and Divisional Code Authorities for carrying out any of its activities provided herein and to pay such Code Authorities, trade associations, and agencies the cost thereof, provided that nothing herein shall relieve the National Code Authority of its duties or responsibilities under this Code, and provided further that such subordinate Code Authorities, trade associations, and agencies shall at all times be subject to and comply with the rules, regulations, and restrictions laid down for them by the National Code Authority and the provisions of this Code and of the Act.

(g) To coordinate the administration of this Code with such other Codes, if any, as may be related to the Industry, or any subdivision thereof, and to dele-

gate to any other administrative authority, with the approval of the Administrator, such powers as will promote joint and harmonious action upon matters of common interest.

(h) To secure from the members of the Industry, an equitable and proportionate payment of the expenses of establishing this Code and of maintaining the various Code Authorities and agencies thereunder. The approval of the Administrator shall be necessary before any assessment is made against those who are specifically exempted from any part of this Code.

(i) To co-operate with the Administrator in regulating the use of any N.R.A. insignia solely by those members of the Industry who have assented to and are complying with this Code.

(j) To initiate, consider and make recommendations for the modification or amendment of this Code, which, upon approval by the Administrator after such notice and hearing as he shall prescribe, shall become a part hereof.

(k) To make rules and regulations governing the procedure of Regional, State and Divisional Code Authorities and any other agencies engaged in carrying out the provisions of this Code and to make such other rules and regulations as may be necessary to carry out the provisions of this Code.

(l) To designate Natural Divisions of the Industry and prescribe rules and regulations for presentation of information necessary in determining such divisions. If directed by the Administrator the National Code Authority shall without delay designate such divisions as the Administrator shall direct.

(m) To designate the States to be included in the separate Regions hereinafter provided for.

(n) To prescribe rules and regulations for the registration of members of the Industry as hereinafter provided for.

(o) To establish administrative rules governing the filing of minima for rates and tariffs, the formulation of trade agreements and the procedure for appeal from the action of subordinate Code Authorities.

(p) To do such other things and to perform such other duties and exercise such other powers as may hereinafter be delegated to the National Code Authority.

(2) Regional Code Authority

Organization: For the purpose of administering the Code, the National Code Authority shall divide the United States into regions consisting of three or more states. For each of the regions there shall be set up a Regional Code Authority which shall be elected by the various State Code Authorities coming within the Region. The Regional Code Authority shall be composed of one member from each State within the Region. In case of an even number of States in any Region, an additional member at large shall be elected by the State Code Authorities within the Region.

Powers and Duties: The Regional Code Authority shall have jurisdiction over interstate matters within its Region and concurrent jurisdiction as defined in Article VIII of the Code with other Regions involved on inter-regional matters. It shall have the power to employ or appoint such committees, agents and employees as may be necessary to carry out its functions and to cooperate with other Regional Code Authorities in inter-regional matters.

(a) It shall, with other Regional Code Authorities, elect the National Code Authority pursuant to rules prescribed by the National Code Authority.

(b) It shall accept a member with full participation in the proceedings, designated by the interstate operators of any one organized natural division, when deliberating on matters peculiar to the interstate operations of that particular division.

(c) It shall have power to hold hearings on trade agreements presented by members of the Industry subject to the provisions of Article VIII of this Code and to cooperate with the Administrator in the enforcement of the same.

(d) It shall collect and maintain full statistical and other informative data respecting the operations of the Industry within its jurisdiction and shall forward to the National Code Authority such information therefrom as may be required by the National Code Authority or by the Administrator.

(e) It shall perform such other functions as may be delegated to it by the National Code Authority.

(3) State Code Authority

The National Code Authority shall divide each Region into areas, each of which shall have a separate Code Authority for such area, referred to as a "State Code Authority."

Organization: Each State Code Authority shall consist of four (4) members elected in the following manner by the registered members of the Industry assenting to the Code within the area. Within sixty (60) days after the effective date of this Code there shall be held an election by those members of the Industry who have registered within thirty (30) days after the effective date of this Code. The State Code Authority set up at the first election held shall be constituted as follows: Two (2) members shall be elected to serve for a term of two (2) years each, or until their successors have been elected and qualified, one (1) on the basis of votes cast by registered members voting as firms and one (1) on the basis of votes cast by registered members voting according to vehicles registered under this Code; the remaining two (2) members shall be elected for a term of one (1) year each, or until their successors have been elected and qualified, on the same basis as prescribed for the members serving two (2) years each. Annually thereafter, two (2) members shall be elected by the registered members of the Industry on the same basis of representation as prescribed above for the first election, to serve for terms of two (2) years each or until their successors have been elected and qualified. Any State Code Authority with the permission of the National Code Authority may be composed of six (6) instead of four (4) members, the additional two (2) members to be elected in the same manner and on the same basis of representation as provided above.

In case of an even vote in a State Code Authority, the Administrator may appoint an impartial member from the members of the Industry to vote with the duly elected members of the State Code Authority.

Powers and Duties: Each State Code Authority shall have primary jurisdiction within its area, except as to such matters falling within the scope of Divisional Code Authorities constituted within such area, and shall have jurisdiction in such matters if they affect more than one Division of the Industry within the area. It shall have power to employ such committees, agents and employees as may be necessary to carry out its functions.

(a) It shall have power to hear application for setting up Divisional Code Authorities for established

natural divisions within the State, and, after hearing, shall report the results of such hearing to the Administrator through the National Code Authority, together with its recommendation for approval or disapproval of the application. When desiring to establish or change the area of a Divisional Code Authority for a subordinate area within the State, the State Code Authority shall make application to the Administrator for the approval or disapproval of the establishment of or change in the area of such Divisional Code Authority. In making such application, the State Code Authority shall furnish full data relative to the area to be included in the scope of jurisdiction proposed for the Divisional Code Authority. It shall have power to hear applications for the discontinuance of or change in the scope of Divisional Code Authorities within its area when application for such discontinuance or change is made by a duly constituted Divisional Code Authority and shall submit such application to the Administrator for approval. It shall also have power to make recommendations to the Administrator for the discontinuance of any inactive Divisional Code Authority within its area on approval by the National Code Authority. All applications and recommendations shall be submitted to the Administrator through the National Code Authority.

(b) It shall maintain a record of all schedules of minima for rates and tariffs filed by members of the Industry, and a record of all trade agreements formulated by members of the Industry in its area and with the aid of the Divisional Code Authority shall cooperate with the Administrator in the enforcement of the same.

(c) It shall have power to hold hearings on trade agreements presented by members of the Industry, subject to the provisions of Article VIII, and to cooperate with the Administrator in the enforcement of the same.

(d) The State Code Authority shall have power to hold hearings on trade agreements proposed by Divisional Code Authorities under the procedure set up in Article VIII and shall have power to formulate trade agreements for established area or natural divisions of the Industry when such trade agreements have not been proposed by Divisional Code Authorities and to present such trade agreements to the Administrator for approval or disapproval.

(e) When deliberating on matters affecting only one established Natural Division of the Industry, the Natural Divisional Code Authority holding primary jurisdiction over the matter shall be invited to appoint one of its members for full participation in the proceedings.

(f) It shall collect and maintain full statistical and other informative data respecting the character and volume of the operation of the Industry within the State and shall forward to the National Code Authority such information therefrom as may be requested by the National Code Authority or by the Administrator.

(g) It shall cooperate with Divisional Code Authorities within its area to secure the enforcement of this Code.

(h) It shall, in convention with other State Code Authorities within its Region, elect the Regional Code Authority for such Region.

(i) It shall have such other functions as may be delegated to it by the National Code Authority.

(4) Divisional Code Authorities

A Divisional Code Authority may be set up within any State in the manner prescribed below for either of the two following purposes: (a) to exercise primary jurisdiction over matters peculiar to any natural division of the Industry within the scope approved for its establishment; (b) to exercise primary jurisdiction over any area division within the State in matters not subject to an established Code Authority for a natural division.

(a) Natural Division of Industry

Organization: Any group of members of the Industry qualified as a natural division of the Industry under the definitions formulated by the National Code Authority with the approval of the Administrator, may file application with the State Code Authority for permission to establish a Divisional Code Authority for such natural division of the Industry. If, after hearing on such application and review by the Administrator as provided in Article III, Section A, Subsection (1) (1), the Administrator grants the application for establishment of a Divisional Code Authority, it shall exercise primary jurisdiction over matters specifically stated in the permission granted for its establishment.

Such Divisional Code Authority shall be comprised of four (4) voting members elected by the registered members of the Industry within its jurisdiction in the same manner and on the same basis of representation as provided for in the election of State Code Authorities.

Powers and Duties: Each Divisional Code Authority shall have power to employ such committees, agents and employees and perform such other functions as may be necessary to carry out the powers and duties granted in the permission for its establishment. In case of an even vote in a Divisional Code Authority the Administrator may appoint an impartial member from the members of the Industry to vote with the duly elected members of such Divisional Code Authority. In addition:

(1) It shall receive schedules of minima for rates and tariffs presented by individual members of the Industry in the natural division and shall forward such schedules to the State Code Authority for filing as provided in Article VII of this Code;

(2) It shall facilitate the formulation of trade agreements among members falling within its jurisdiction and shall present the same to the State Code Authority for hearing as provided in Article VIII of this Code;

(3) It may appoint one of its members to sit with the State Code Authority when invited to do so;

(4) It shall cooperate with the State Code Authority and with the Administrator in the administration of this Code;

(5) It shall have power to appeal to the Administrator, through the National Code Authority, from decisions of the State or Regional Code Authorities;

(6) It shall collect and furnish to the State Code Authority such statistical and other informative data as may be required by the State Code Authority respecting the operations of the members of the Industry within its jurisdiction.

(b) Area Divisions of State

Organization: The State Code Authority may set up, subject to the approval of the Administrator as provided in Article III, Section A, subsection (1) (1), Divisional Code Authorities to exercise, within a prescribed area in the State, primary jurisdiction over the operations of the members of the Industry not

subject to an established Code Authority for a natural division of the Industry. Its membership shall be chosen by members of the Industry within its area in the same manner as provided for a Code Authority of a natural division of the Industry.

Powers and Duties: It shall have powers and duties with respect to the members of the Industry within its scope, similar to those possessed by a Code Authority for a natural division as set forth above.

B. General Administrative Provisions

1. If the Administrator shall determine that any action of a Code Authority or any agency thereof is unfair or unjust, or contrary to the public interest, the Administrator may require that such action be suspended for a period of not to exceed thirty (30) days to afford an opportunity for investigation of the merits of such action and further consideration by such Code Authority or agency pending final action, which shall be subject to the approval of the Administrator. The rules and regulations of any Code Authority or other administrative agency under this Code shall be subject to the approval of the Administrator.

2. Each trade or industrial association directly or indirectly participating in the selection or activities of any Code Authority shall (a) impose no inequitable restriction on membership; (b) submit to the Administrator true copies of its articles of association, by-laws, regulations, and any amendment when made thereto, together with such other information as to membership, organization, and activities as the Administrator may deem necessary to effectuate the purposes of the Act.

3. In order that the several Code Authorities shall at all times be truly representative of the Industry and in other respects comply with the provisions of the Act, the Administrator may provide such hearings as he may deem proper; and thereafter if he shall find that any Code Authority is not truly representative or does not in other respects comply with the provisions of the Act, he may require an appropriate modification in the method of selection of such Code Authority.

4. Members of the Industry shall be entitled to participate in and share the benefits of the activities of the various code authorities and to participate in the selection of the members thereof by assenting to and complying with the requirements of this Code and sustaining their reasonable share of the expense of its administration. Such reasonable share of the expense of administration shall be determined by the National Code Authority, subject to review by the Administrator, on the basis of such factors as may be deemed equitable.

5. Nothing contained in this Code shall constitute the members of a Code Authority partners for any purpose. Nor shall any member of a Code Authority be liable in any manner to anyone for any act of any other member, officer, agent or employee of a Code Authority. Nor shall any member of a Code Authority exercising reasonable diligence in the conduct of his duties hereunder, be liable to anyone for any action or omission to act under this Code, except for his own willful misfeasance or non-feasance.

C. Temporary Organizations

Pending the election of the members of the National Code Authority, as hereinabove provided, the voting members shall be temporarily appointed as follows:

Seven (7) shall be chosen by the Board of Trustees of the American Trucking Associations, Inc., and two (2) shall be selected in a manner approved by the Administrator. Such National Code Authority shall divide the United States into regions consisting of three (3) or more states, designate areas for State Code Authority jurisdiction and shall appoint, subject to the approval of the Administrator, temporary members of the Regional, State and Divisional Code Authorities. Temporary members of all Code Authorities shall continue in office until their successors are duly elected and qualified.

ARTICLE IV—INDUSTRIAL RELATIONS BOARDS

There shall be established a National Industrial Relations Board for the Industry, consisting of three (3) representatives of members of the Industry and three (3) representatives of employees of members of the Industry. This Board shall have the power to deal with alleged violations and non-observance of the labor provisions of this Code and disputes between employers and employees; to provide, subject to the approval of the Administrator, rules for the selection of its own members and those of local Boards, and rules and regulations for procedure and conduct of these Boards; to establish Regional, State and Divisional Boards similarly constituted; and to provide for the selection of the members of these Boards; and it shall also advise and cooperate with the National Code Authority and the Administrator on all matters of industrial relations.

Until such time as an election for members of the National Industrial Relations Board is conducted as above provided and representatives so chosen assume membership on such Board, the employee representatives shall be appointed by the Administrator from a panel of nominees submitted by the Labor Advisory Board of the N.R.A. The representatives of members of the Industry shall be appointed by the National Code Authority. These Industrial Relations Boards may select an impartial chairman to reach a majority agreement.

In the selection and functioning of the National Industrial Relations Board or any Industrial Relations Board established under rules made by it, the employees shall enjoy the protection extended to them under Section 7 (a) of the Act.

ARTICLE V—HOURS AND WAGES

A. Hours

1. No employee in clerical or office work except rate clerks and dispatchers shall be permitted to work in excess of forty (40) hours in any one week, nor more than six (6) days in any seven (7) day period.

2. No other employees except those driving vehicles and their helper or helpers on the vehicle shall be permitted to work in excess of forty-eight (48) hours per week, averaged over a period of three (3) weeks, with a maximum of fifty-four (54) hours in any one week, nor more than twelve (12) days out of fourteen (14) days, provided, however, that they shall be paid at the rate of one and one-third (1 1/3) their normal rate for all hours work in excess of eight (8) hours in any one day or forty-eight (48) hours in any one week.

3. No person driving a vehicle or his helper or helpers on the vehicle shall be permitted to work in excess of one hundred eight (108) hours in any consecutive two (2) week period, nor more than one hun-

dred ninety-two (192) hours in any consecutive four (4) week period, nor more than twelve (12) days in any fourteen (14) day period; except as herein otherwise provided, and they shall be paid at the rate of one and one-third (1 1/3) times the normal rate for all hours worked in excess of forty-eight (48) hours in any one week, except in cases of emergency demand falling under Section 5 hereof.

4. It shall be the duty of the National Code Authority, in cooperation with the National Industrial Relations Board, to investigate, collect data and report findings and recommendations to the Administrator as soon as possible, but not later than August 1, 1934, with respect to achieving and providing a normal eight (8) hour day for all employees, with equitable overtime rates of pay for time worked beyond such normal eight (8) hour day and for the purpose of generally determining the feasibility and desirability of adoption of a shorter working day and week and improvement of the rates of pay and terms and conditions of employment for employees in the industry over those provided under this Code.

5. When seasonal demands arise involving movements of perishable goods or seasonal crops, or in case of emergency demands, an employee may, with the approval in advance of the appropriate State or Regional Code Authority, be employed for a longer period than permitted to work an additional twelve (12) hours in any two (2) week period beyond one hundred and eight (108) hours, which additional hours need not be averaged out within the consecutive four (4) week period. The total period for which seasonal or emergency demand may be considered to exist is to be limited to three (3) consecutive months, for any such division of area or for an individual employee, except that the overtime provision in Section 3 may be stayed by the Administrator for a longer period than three (3) months for those operations where State laws restricting tonnage create an emergency lasting for a longer period.

6. Any natural or territorial group of members of the industry, in accordance with the procedure established for making group trade agreements as provided in Article VIII hereof, or groups of representative employers and representative employees through collective bargaining arrived at by bona fide collective bargaining may, with the approval of the Administrator after such notice and hearing as he may prescribe, establish maximum hours and minimum wages applicable to employees in any such division of area and shall be binding on all members of the industry in such division or area, provided, however, that any such maximum hours so established shall in no event exceed the maximum hours fixed in this Code nor minimum wages be less than the minimum wages established in this Code. No trade agreement shall be approved pursuant to this Section which tends to set a maximum as well as a minimum wage, or in any way to impair rights guaranteed to employees under Section 7 (a) of the Act.

7. The maximum hours provided above shall not apply to employees engaged in a managerial or executive capacity who receive thirty-five (\$35.00) dollars per week or more in the North, or thirty (\$30.00) dollars or more in the South, for station managers, where such employees are intermittently employed.

Persons engaged solely as watchmen shall not be permitted to work in excess of fifty-six (56) hours in any one week nor more than six (6) days in any seven (7) day period.

8. All time spent by any employee on or in any vehicle shall be considered time worked, regardless of whether such employee is engaged in driving or in the performance of other labor, unless such employee is a relief employee off duty engaged on a vehicle equipped with a sleeping compartment. A committee constituted in like manner as the National Industrial Relations Board shall, within ninety (90) days after the effective date of this Code, submit definitions and regulations governing "off duty" and governing the practice known as "dead-heading," to be effective when approved by the Administrator.

9. No employer shall knowingly engage any employee already employed by another for any time which, when totaled with the hours of any other employment, exceeds the maximum weekly hours permitted herein.

B. Wages

1. Drivers and skilled labor in the North shall be paid not less than at the rate of (a) fifty-five (55) cents an hour in cities of 2,000,000 population or over, or in the immediate trade area thereof; (b) forty-five (45) cents an hour in any city of between 200,000 and 2,000,000 population, or in the immediate trade area thereof; (c) forty (40) cents an hour in cities of between 15,000 and 200,000 population, or in the immediate trade area thereof; and (d) thirty-seven and one-half (37 1/2) cents an hour in towns or places of less than 15,000 population. In the South, drivers and skilled labor shall be paid not less than at the rate of (a) thirty-five (35) cents an hour in cities of 200,000 population or over, or in the immediate trade area thereof; (b) thirty-two and one-half (32 1/2) cents an hour in cities of between 15,000 and 200,000 population, or in the immediate trade area thereof; and (c) thirty (30) cents an hour in towns or places of less than 15,000 population.

2. The minimum for unskilled employees in the North shall be at the rate of not less than (a) forty (40) cents an hour in cities of 200,000 population and over, or in the immediate trade area thereof; (b) thirty-seven and one-half (37 1/2) cents an hour in cities of 15,000 to 200,000 population, or in the immediate trade area thereof; and (c) thirty-five (35) cents an hour in towns or places of less than 15,000 population; and in the South, (a) thirty (30) cents an hour in cities of 200,000 population and over, or in the immediate trade area thereof; (b) twenty-eight (28) cents an hour in cities of 15,000 to 200,000 population, or in the immediate trade area thereof; (c) twenty-five (25) cents in towns or places of less than 15,000 population; except that in the States of Alabama, Florida, Georgia, Mississippi and South Carolina, the minimum rate shall be not less than twenty-five (25) cents.

3. Helpers to drivers and helpers to skilled employees, which helpers are principally engaged in such skilled operations, shall be paid at not less than the rates specified in Section 1.

4. No office employees shall be paid less than at the rate of (a) \$15.00 per week in any city of 500,000 population or over, or in the immediate trade area thereof; (b) \$14.50 per week in any city between 250,000 and 500,000 population, or in the immediate trade area thereof; (c) \$14.00 per week in cities or places of less than 250,000 population.

5. This Section establishes a minimum rate of pay which shall apply irrespective of whether an employee is actually compensated on a time-rate, piece-work, mileage, or other basis.

6. No employee whose normal full-time weekly hours

for the week ending June 17, 1933, are reduced by less than fifteen (15) per cent shall have his full-time weekly earnings reduced. Any employee whose said full-time weekly hours are reduced by fifty (50) per cent or more shall not have his said earnings reduced by more than twenty-five (25) per cent. All other employees whose hours are reduced in excess of said fifteen (15) per cent shall have their earnings adjusted proportionately. The principle of this paragraph shall apply by class of worker to all other employees whose hours have been reduced.

7. No provision of this Section shall modify established practices or privileges as to vacation periods, leaves of absence, or temporary absences from work heretofore granted to employees.

8. Persons learning an occupation shall be paid not less than eighty (80) per cent of the minimum wage which prevails in such occupation, provided that the number of such learners shall not exceed five (5) per cent of the employees of any one employer and that learners shall not be employed as such for a period in excess of four (4) weeks, irrespective of whether they are employed by one or more employers.

9. A person whose earning capacity is limited because of age or physical or mental handicap may be employed on light work at a wage below the minimum established by this Code if the employer obtains from the State Body designated by the United States Department of Labor, a certificate authorizing his employment at such wages and for such hours as shall be stated in the certificate. Each employer shall file with the appropriate Code Authority, a list of all such persons employed by him.

C. General Labor Provisions

1. No person under sixteen (16) years of age shall be employed in the industry. No person under eighteen (18) years of age shall be employed at operations or occupations which are hazardous in nature or dangerous to health. The National Code Authority shall submit to the Administrator within thirty (30) days after the approval of this Code, a list of such operations and occupations. In any State, an employer shall be deemed to have complied with this provision as to age if he shall have on file a certificate or permit duly issued by any agency in such State empowered to issue employment or age certificates or permits showing that the employee is of the required age.

2. Employees shall have the right to organize and bargain collectively, through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection. No employee and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing, and employers shall comply with the minimum hours of labor, minimum rates of pay, and other conditions of employment approved or prescribed by the President of the United States.

3. No employer shall reclassify employees or duties of occupations performed for the purpose of defeating the provisions of the Act or of this Code.

4. Every employer shall provide for the safety and health of his employees at all places and during all hours of their employment. Standards for safety and health shall be submitted by the National Code Authority to the Administrator within six (6) months after the effective date of this Code.

5. No provision in this Code shall supersede any law within any State which imposes more stringent requirements on employers as to age of employees, wages, hours of work, or as to safety, health, or sanitary conditions or insurance or protection, or general working conditions, than are imposed by this Code.

6. No provision in this Code shall supersede provisions as to hours, wages and conditions of employment which are established for specific projects by competent governmental authority acting in accordance with law, or to terms of employment which are established by labor agreements now in force, where either the wages are higher or the hours of labor are shorter, or both, than are those set forth in this Code, unless the employees require the termination of such contracts and future labor agreements shall not lower conditions of labor.

7. All employers shall post complete copies of this Code in conspicuous places accessible to employees.

8. An employer shall not make payment of wages due other than in lawful currency or by negotiable check therefor payable on demand. These wages shall be exempt from any payments for pensions, insurance or sick benefits other than those voluntarily paid by the wage earners, or required by State law. Pay-periods for wages shall be at least at the end of every two weeks, and for salaries at least at the end of every month. The employer or his agent shall accept no rebates directly or indirectly, nor give anything of value or extend favors to any person for the purpose of influencing rates of wages or the working conditions of his employees.

ARTICLE VI—REGISTRATION

1. Every member of the industry shall, within thirty (30) days after the effective date of this Code, or within ten (10) days after becoming a member of the industry, and annually thereafter, register his name, number and type of vehicles operated and such other information in such form, under such rules and regulations, and with such agency as may be prescribed by the National Code Authority with the approval of the Administrator or as may be required by him.

2. Each member of the industry, upon complying with the provisions of Section 1 hereof, shall be issued an annual registration certificate and registration insignia indicating such registration. The cost of registering vehicles and furnishing insignia for the same shall be assessed against the member registering.

3. After forty-five (45) days after the effective date of this Code, it shall be a violation of this Code for any member of the industry to operate any vehicle without such registration insignia prominently displayed at all times upon the outside of the vehicle.

4. Each vehicle owned and operated by a farmers' cooperative association shall be registered by the association with the appropriate code authority and such authority shall issue a modified type of insignia, which insignia shall be clearly distinguishable from that carried by other classes of members of the industry. The cost of registering vehicles owned and operated by farmers' cooperative associations and the cost of furnishing modified insignia for the same shall be assessed by the appropriate Code Authority against the farmers'

cooperative associations, subject to the approval of the Administrator.

ARTICLE VII—RATES AND TARIFFS

1. Within forty-five (45) days after the effective date of this Code, each for hire member of the industry shall file with the appropriate State or Regional Code Authority schedules of minima for rates and tariffs covering his operations, subject to the right, however, to file amendments or alterations thereto from time to time. No for hire member of the industry shall perform any service not covered by a schedule filed by him nor charge, collect or demand less than the minima provided in such schedules for the service to be performed without first having filed requisite alterations or amendments to provide for such reduction.

2. Rates and tariffs charged by each for hire member of the industry shall be sufficient to meet the cost of the service to be performed except such lesser rate as may be approved by the appropriate Code Authority permitting such for hire member to meet the rates and tariffs of a competitor outside the industry.

Costs shall be determined in accordance with a cost formula to be established by the National Code Authority with the approval of the Administrator as hereinafter provided. If the appropriate State or Regional Code Authority shall find, after hearing, that a schedule of minima for rates and tariffs filed by a for hire member of the industry provides rate or rates insufficient to meet the cost of the service to be performed, it may suspend such rate or rates and shall require the filing of a schedule of minima for such rate or rates sufficient to cover the cost of such service.

3. Cost formula for determination of rates and tariffs in the divisions or areas of the industry, rules and regulations to make effective the provisions of this Article, and rules and regulations to govern hearings by State and Regional Code Authorities and to govern appeals from the action of Divisional, State and Regional Code Authorities shall be formulated by the National Code Authority to be effective on approval by the Administrator. Additional provisions for rates and tariffs may be submitted by the National Code Authority to be effective on approval by the Administrator, after due notice and hearing.

ARTICLE VIII—TRADE AGREEMENTS

Agreements respecting trade practices and agreements formulated by members of the industry tending to liberalize labor conditions, provided that such agreements are not in violation of any of the provisions of Articles IV and V hereof, may be formulated by members of the industry subject to rules and regulations with respect thereto made by the National Code Authority with approval of the Administrator.

When a trade agreement covering any one of the above subjects is formulated it shall be submitted to the appropriate Regional or State Code Authority, which Code Authority shall give notice to all registered members of the industry who might be affected by said agreement, and after such notice shall hold a hearing thereon. The notice shall be given and the hearing held according to rules and regulations prescribed by the National Code Authority.

Trade agreements involving only members of the industry falling under the jurisdiction of Divisional or State Code Authorities shall be submitted to the appropriate State Code Authority. Trade agreements extending beyond the jurisdiction of a State Code Authority shall be submitted to the appropriate Regional Code Authority and if extending beyond the jurisdiction of the Regional Code Authority shall be presented to the Code Authority for one of the regions involved and shall be dealt with by a joint committee of all the regional code authorities within whose jurisdiction such agreement is effective. The Code Authority to which such trade agreement is originally presented shall give notice to all other regional code authorities in order that such joint committee may be set up. In dealing with such trade agreement, the joint committee of all the regions involved shall be vested with the powers of the several regional code authorities from which its members are appointed. The proceedings of such inter-regional committee shall be conducted according to rules and regulations prescribed by the National Code Authority and each Regional Code Authority involved shall be kept fully informed of the activities of the joint committee.

If the appropriate Code Authority shall find after hearing that the proposed agreement complies with the provisions of this Code and that it is assented to by members of the industry operating a majority of the vehicles involved or carrying a major portion of the tonnage involved, and that the members presenting the agreement are truly representative of the members of the industry bound thereby, it shall submit the agreement through the National Code Authority to the Administrator together with its recommendations, on the same accompanied by evidence in support of its recommendations. If approved by the Administrator the provisions of such trade agreement shall be binding upon all members of the industry falling within the jurisdiction of the Code Authority presenting the agreement.

Each trade agreement submitted shall definitely set forth the scope thereof by area and by operation, and shall designate therein a committee of three members of the industry with power to consent to any modification or change which the Administrator may require in order that such agreement shall conform to the provisions of the Act. Such committee shall act through the Code Authority to which the agreement was submitted and the National Code Authority, as the occasion may require.

ARTICLE IX—TRADE PRACTICE RULES

Violation of any of the following Trade Practice Rules shall constitute unfair practices under the provisions of this Code. Any member of the industry who shall, directly or indirectly, through any officer, employee, agent, or representative, use, employ or permit to be employed, any such unfair practices shall be guilty of a violation of the Code.

1. No member of the industry shall transport property for hire unless a freight bill, shipping order, bill of lading, or other written memorandum shall be issued within forty-eight (48) hours of the beginning of the transportation, and each member of the industry shall make a true copy of the original a part of his permanent records; provided that exceptions from this Section may be prescribed or granted by the appropriate Code Authority, where in the judgment of such Code Authority exception is appropriate.

(CONTINUED ON PAGE 16)



Left to right: Brashears, Anderson, Loomis, Beck, C. F. Jackson, R. Jackson, Howard, Carter, Nelson,

THE Trucking Industry has never had a rougher road to travel than the Code Route between NRA headquarters and the headquarters of the American Trucking Associations, Inc., in the Transportation Building, Washington, D. C.

The writer can say this without hesitation after making a special trip to the capital to find out what held up the trucking code so long.

The Code Route has been a series of obstacles, some of which were foreseen but most of which were unforeseen. Deputy Administrator Hughes, of General Johnson's staff, had some idea of the hard problem before him when he closed the Nov. 17 trucking code hearing with the declaration that the trucking code was one of the most difficult before the National Recovery Administration and required the earnest cooperation of all groups. But not even he could have anticipated that the difficulties would be so complex and so numerous.

It is to the credit of the Trucking Industry that the the Code Contact Committee of the American Trucking Associations has met and surmounted each problem in turn. It has functioned tirelessly and conscientiously and, what is more to its credit considering the nature of the obstacles, patiently and intelligently.

The delay in getting a code satisfactory to all elements concerned and to NRA must be blamed entirely upon the problems encountered. These problems resulted from well-organized opposition by farmers and the National Furniture Warehousemen's Association and by the demands of the various NRA advisory boards, notably the Labor Advisory Board. Delay also resulted from changes in the NRA administrative staff and from introduction of the Rayburn bill to regulate trucks in interstate commerce. And it is to be suspected that the railroads have not neglected the opportunity to do all in their power to defeat the trucking industry's commendable effort to achieve self-regulation.

Here are some of the major obstacles encountered by the A.T.A. Code Contact Committee which have consumed the weeks since the code hearing Nov. 16 and 17.

THE TALE OF THE TRUCKING CODE

BY GEORGE T. HOOK, EDITOR



The farm organizations followed up their presentation at the code hearing with a determined campaign to make the code non-applicable to trucks used in the hauling of farm products. The code as originally drawn had exempted all vehicles not for-hire used by a farmer in the transportation of his own property, produce or supplies. The National Grange demanded the exemption of all trucks primarily engaged in hauling farm products from the farm and supplies to the farm. This demand disregarded entirely the competitive character of for-hire trucking in the agricultural areas. Finally the farm element was appeased by a compromise move, calling for the exemption of all farmers who hauled their own products and supplies or the products and supplies of neighboring farmers when they did so in their turn (this "hauling in turn" seems to be an economical measure wisely adopted by farmers); the exemption from rate provisions of farmer cooperative organizations hauling to and from primary markets at cost for themselves or for their members only. In addition the registration and reporting features were modified to make them easier for the farmer cooperative groups.



Ted V. Rodgers
President, American Trucking Associations, Inc.

The determined opposition of the National Furniture Warehousemen's Association, which on more than one occasion placed the code in jeopardy, was another attack from within the industry which the Code Contact Committee resisted until it became apparent that agreement could be reached only by compromise. They were petitioning not for exemption from any code but for inclusion of their trucking operations in their own Household Storage and Moving Trade Code. Vehicles transporting used household goods, used office furniture and used office equipment which derive not more than 10 per cent of their revenue in any calendar month from occasionally carrying other merchandise were given the option of registering either under the Trucking



Fitzpatrick, Murphy, Rodgers, Thompson, Daniels, Stewart—The A.T.A. Code Contact Committee

ROCKY TRAIL THE HAD TO TRAVEL

COMMERCIAL CAR JOURNAL



Hugh S. Johnson
Administrator, National Recovery Administration

Code or under the Household Storage and Moving Trade Code. When carrying general merchandise, however, operators of these vehicles must abide by the labor provisions of the Trucking Code; must not charge less than the lowest rate on file for the Trucking Industry for similar services in the same locality; and must issue a freight bill, bill of lading or other document as required in the Trade Practice Rules of the Trucking Code. A hearing is to be held prior to June 15 to allow the Administrator to determine their status.

Vehicles carrying used household goods, used office furniture and used office equipment that derive more than 10 per cent of their revenue in any calendar month from carrying general merchandise are subject to code provisions.



Labor representatives were particularly active in raking over every provision of the tentative code in which labor was in any way concerned. Working through the Labor Advisory Board of the NRA they were responsible for discussions, arguments, delays and finally a major misunderstanding—all of which consumed weeks and weeks of effort.

Not even the section devoted to "Definitions" was immune to labor's exacting demands. The Labor Advisory Board, supported by a study of living costs made by the Department of Labor, saw no reason why the border states of Maryland, Delaware, West Virginia, Missouri and District of Columbia and California south of the Tehachapi Mountains should be included in the South and so subject to the lower wage provisions of the code. Kentucky was the only border state, the Board argued, which should be retained in the southern ranks.

The "Industrial Relations" section of the code bore, of course, the brunt of the labor attack. The numerous and extended arguments which ensued led one to believe that the labor representatives started their negotiations with NRA and the Code Contact Committee

on the premise that practically every provision in this section was wrong to begin with.

Hours, wages and overtime pay were the subjects of protracted argument extending, believe it, over six or seven weeks. The Code Contact Committee first ran into insistence on restriction of working hours to 10 hours a day, a 48-hour week and entire elimination of the averaging provision. Later labor came in with an overtime provision calling for time and one-third for all time over eight hours in any one day. The weekly maximum was held to 48 hours. This was followed by a proposal that local cartage operators be reduced to a 44-hour week, averaged over two weeks, and a nine-hour maximum day.

The Code Contact Committee confronted with these demands set to work earnestly and step by step won concessions, first in the matter of averaging and secondly in the matter of overtime. They were successful in getting a 48-hour week for drivers (or helpers on vehicles) and averages of not over 108 hours in any two weeks and 192 hours in any four weeks, with a limitation of 12 out of 14 days. There was an agreement on overtime, too, but owing to an error in typing the matter was for a considerable time the subject of dispute. The Code Contact Committee of the A.T.A. contends that the overtime agreement called for a 1-1/3 rate for all time over 48 hours any week in cities of 50,000 population or over. However, in rushing a copy of the agreement to Administrator Rosenblatt, who was then in the mid-west, error in typing was made, so the Committee contends, stipulating time and one-third over eight hours in any one day.

Although the Consumers Advisory Board, the Legal and Industrial Advisory Boards and the Economic Research and Planning Division of NRA sent in signed approval of the provision as interpreted by the Code Contact Committee, the Labor Advisory Board refused to give its approval, contending that the agreement was on time and one-third over eight hours in any one day.

After two weeks of argument the
(TURN TO PAGE 50, PLEASE)



BY L. WINDING
*Head of Repair Shops
 McMarr Division (Calif.)
 of Safeway Stores
 As Told to Clarence Eby*

MY investigations have convinced me, and my experience has supported the conclusions reached in the investigations, that oil is indestructible. In other words, oil is oil and will remain oil forever, no matter what happens to it—that is, no matter what impurities may defile it, no matter to what strain or stress it is subjected, no matter how long nor under what circumstances it is used. It cannot be “worn out.”

This is my answer to those who insist that reclaimed oil is unsatisfactory and should not be used. Not only do I believe their position is absolutely untenable, but I have not the slightest hesitancy in asserting that, in my opinion, at least, reclaimed oil is exactly as good as new oil, will accomplish everything that can be done by new oil, to all intents and purposes is new oil.

There was a time when I was not certain about this, but I was anxious to ascertain the facts, for we have about 75 trucks in our division and use from 80 to 90 barrels of oil a year, so the economic phase of the question meant considerable to us, especially as our division was not the only one affected. Therefore we tested it out as far as possible and also obtained expert opinions based on chemical analyses and tests. We received the reports of an established and reputable petroleum inspection service, to which we had subscribed for a certain period of time, and we also submitted samples of oil to the experts in chemistry at the University of California, who gave us the reports of detailed analyses of these



samples. The conclusions to be drawn from the results obtained by both of these agencies were identical and inescapable—that oil does not deteriorate by use, but continues its functions as efficiently as at the beginning for as long as it is asked to do so.

The samples of used oil we had sent to the University of California were shown to have the same flash and the same viscosity as before they were put into use. The tests at the petroleum inspection service's laboratory gave virtually the same result. It was evident to me that the molecules of oil are indestructible through their use as lubricants; that one could go on using them a thousand years—yes, forever—if the dirt and other impurities, or dilution, were taken out; that about the only way to destroy oil is to burn it.

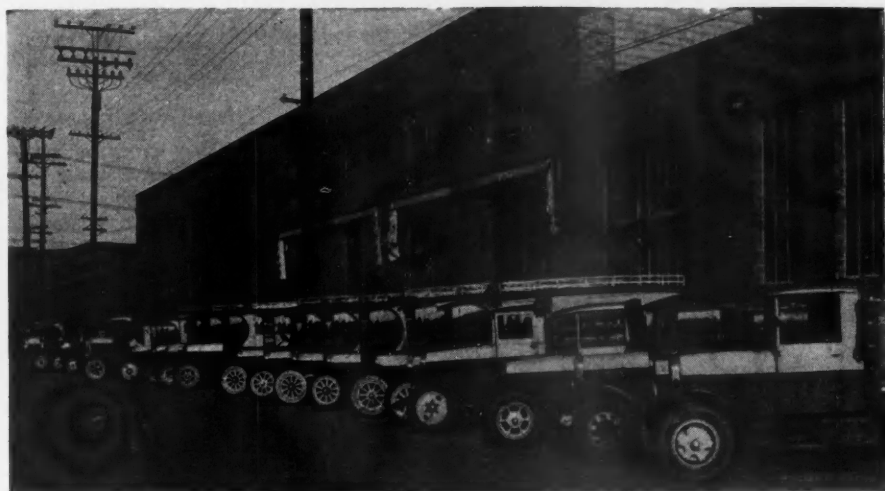
So we have installed a standard make of filter in our plant and we have it constantly in operation. By doing so we have cut our oil bills about one-third. If I put on a flat glass three kinds of oil, one taken from a crankcase after use, another after reclamation and a third before it ever has been used, the first will be dark brown, with many particles, signifying the dirt and other dilution; the second will be about the same color but minus the impurities; the third will be light green and

OIL & Reclaim It!

of course clear and free from particles. We could, if we wished, remove the dark brown color of the reclaimed oil and make it much clearer and lighter by distilling it after going through the filter, but it would cost at least \$1,500 to install the necessary equipment and would not make it a bit better oil, so why should we go to that useless expense?

We vary the oil treatment we give our trucks according to conditions. For the trucks used on short hauls, or running about town, with frequent stops, we change the oil about every thousand miles. On the longer hauls, say about 200 miles, to distant towns or cities, we do not change so frequently. That is because the truck working here, running about town, is making perhaps 100 stops a day, making deliveries to our many stores, and every time it starts the choke is used a little and this sends a little gasoline down into the oil. Thus the oil becomes diluted faster than that in the trucks on longer runs.

However, we do not let any of the trucks go from one oil change to another without adding to the oil. For example: in one truck that carries 12 quarts of oil we will put in 8 quarts of reclaimed oil and we will “make up” four quarts. That is, we put four quarts of new oil with the eight quarts



TIRES

Baby Them! - - - and Watch Your

Costs Come Down

of reclaimed oil. A month later we make another change by taking out six quarts and replacing it with fresh oil. Of course we run through the filter the six quarts of used oil we have withdrawn and send it back to the firing line, so to speak, later on.

We never use the oil again if water or gasoline gets into it to any considerable extent. I had a truck overhauled yesterday which wasn't working just right. We found that the fuel pump leaked and that the oil was 50 per cent gasoline, for the car had run somewhere between 24 and 36 hours in that condition before we made the discovery. The filter will take care of from 4 per cent to 6 per cent, even as high as 10 per cent, of water or gas in the oil, for every car lets in some of these two foreign substances, but when it runs higher than this—it even gets as high as 50 per cent sometimes, as I have indicated—the work of removing it from the oil provides too much of a strain on the filter. We try to keep the oil in the trucks above a certain level, for if it gets below that level the splash system misses fire and you are apt to have a condition of bare metal against bare metal. We also try to keep it below a certain higher level, for if it gets above that level it is pumped into the plugs and fouls them.

We do not subscribe continuously to

the petroleum inspection service I mentioned, but have them inspect the oil in our cars over a certain period of time every six months. Thus we receive reports as to what each truck is doing and recommendations as to how far it should be permitted to run before the oil is changed, which, we believe, makes it possible for us to get a pretty good line on the performances of our different engines. It is possible that later we may change to a constant inspection service, for we have so many cars that we need to be perpetually on the watch.

We always use the best eastern oil we can get. We used western oil for two years, but it was not found suitable to our purposes. The bearings of our engines wore out faster; it was harder to start the engine; the motor heated up more; the oil thinned out to a greater degree. We learned that on long trips, if we used western oil, the pressure gage dropped down and when we pulled out the oil stick we found the lubricant clinging to it rather thin.

We have had some trouble with excessive oil consumption, but we try to eliminate this by inspecting our cars thoroughly every so often. The trucks on the long-distance runs we overhaul every 70,000 or 80,000 miles. Those

(TURN TO NEXT PAGE, PLEASE)

● The author says he cut his oil bill 33 1/3 per cent.

● And the lowering of the tire bill was simply tremendous.

● After checking tire mileage against tire expense he set aside one-half a cent per mile per truck to meet the tire expense item.

● But so efficiently have the tires been taken care of that for this year the tire budget figure has been reduced to one-fourth of a cent per mile per truck.

● The story tells how this fleet effected its oil and tire economies.

on the short runs we give the "once over" about every 25,000 miles. We take down everything and check up on all parts of the engine and the car, taking up the bearings, if necessary; examining and tuning up the ignition—we make, in fact, a thorough overhauling.

We don't throw away cracked cylinder heads or cylinder blocks any more. We used to do that, or weld them, after the motor had filled with water and it had got into the pistons and the oil, until the oil looked creamy or foamy, so that we knew something was wrong. Now we put copper into the crack, filling every bit of it and tapping it down to make it solid. You know a plumber makes a joint tight by putting in lead and tapping it until it is waterproof. He calls that caulking it. We follow the same method in filling the crack in a cylinder head or a cylinder block with copper. The copper, being soft, fills in easily and answers the purpose admirably.

We have lowered our tire costs tremendously from what they were a few years ago. Of course this is not all due to ourselves, for it is true that all of the larger companies make better tires than they once did and that prices have been reduced until they are only about 60 per cent of what they were in 1929, but even at that we have done a lot to slice a considerable amount from our tire bills. We have learned a lot about the care of tires and we try to infuse all of that information possible into our drivers and others who participate in their oversight.

For a long time we have kept a tire mileage on all of our trucks and after estimating the expense of that item

and checking that with results have set aside one-half of a cent per mile per truck to take care of it. Yet so efficient has been our operation and so excellent our care of the tires that not long ago our chief accountant came to me and said:

"We have more money set aside for the purchase of tires than we ever will use in all time, it seems to me."

"Very well," I said, "next year we will set aside only one-fourth of one cent per mile."

We received a fine letter of commendation a few months ago from the Goodyear people, from whom we buy our tires, for our showing in comparison with other fleets throughout the country. They make a check of all of the big fleets throughout the United States as to the life of the tires, mileage, expense and the care given the tires. They checked on our tire equipment and these features connected with it about a year ago. They reported to us that we were almost 99 per cent perfect in our care of the tires and in the use of the proper tire for each truck. We were given the highest rating of any fleet which they had checked that far in the United States, higher, even, than any of the other branches of our own concern, which is an extensive one.

One of the big things we are always stressing is the matter of inflation. And the most injurious form of improper inflation is under-inflation. Nothing will wear down a tire like making a practice of putting too little air in it. Then there is the mistake many persons make who look after tires, that of putting a new tire and an old one on the same wheel, where dual tires are used. This is one of the finest methods

of increasing costs and lessening efficiency that I know of. The two tires do not wear evenly, of course; nearly all of the strain is placed on one tire and the costs are materially heightened.

Improper alignment is another thing we guard against very carefully. If the tire does not have the proper "toe-in," the greatest wear will not come where it is supposed to be and the part which is constructed to resist wear as much as possible will shift it onto a spot not reinforced for that purpose, with a consequent shortening of the life of the tire and increased tire costs. Sometimes a workman, if he is not careful or watched, will put a tire on lop-sided, which also is disastrous. Again the tire wears unevenly, besides which it frequently whips slightly from one side to the other, which helps to prevent the smooth operation of the vehicle and adds to the tire bill. It is very easy, by a failure to observe these simple rules, to shorten the life of the tire by from 25 to 50 per cent. Our fleet covers about 100,000 miles per month, so it behooves us to be pretty careful and observant.

We hold our drivers' meetings about once a month and we make every effort to impress upon them the necessity for care and economy. Sometimes we discuss tarpaulins or truck coverings and the fact that too many of them are being lost; sometimes it is tires and the great part the driver plays in their preservation; sometimes it is the matter of leaving the motor running too much.

We do not have to hold over an offending driver's head the threat of the possible loss of his job, but try to impress on him the necessity for co-operating with us. It hasn't failed yet.

The Code of Fair Competition of the Trucking Industry

(CONTINUED FROM PAGE 11)

No member of the Industry shall transport property for hire unless the shipment is accompanied by a memorandum receipt showing (a) the point of origin; (b) the name of the consignor; (c) the date; (d) a general description of the shipment; (e) destination, and (f) the name of the consignee, provided that exception from this Section may be prescribed or granted by the appropriate Code Authority where in the judgment of such Code Authority, exception is appropriate.

2. No member of the Industry shall secretly offer or make any payment or allowance of a rebate, refund, commission, credit, unearned discount or excess allowance, whether in the form of money or otherwise, for the purpose of influencing a shipment, nor shall a member secretly extend to any shipper any special service or privilege not extended to all shippers under like terms and conditions.

3. No member of the Industry shall allow any shipper to bill freight at less than its actual weight or to falsely describe any shipment.

4. No member of the Industry shall in any way misrepresent any service or use advertising (whether printed, radio, display, or of any other nature) or other representation which is inaccurate in any material particular.

5. No member of the Industry shall attempt to induce the breach of an existing contract between a competitor and his employee or customer; nor shall any such member interfere with or obstruct the performance of such contractual duties or services.

6. No member of the Industry shall defame a competitor by falsely imputing to him dishonorable conduct, inability to perform contracts, questionable credit standing, or by other false representations.

7. No member of the Industry shall publish or cir-

cularize unjustified or unwarranted threats of legal proceedings which tend to or have the effect of harassing competitors or intimidating their customers.

8. No member of the Industry shall give, permit to be given, or directly offer to give, anything of value for the purpose of influencing or rewarding the action of any employee, agent, or representative of another in relation to the business of the employer of such employee, the principal of such agent or the represented party, without the knowledge of such employer, principal or party. Commercial bribery provisions shall not be construed to prohibit free and general distribution of articles commonly used for advertising except so far as such articles are actually used for commercial bribery as hereinabove defined.

9. No member of the Industry shall drive a vehicle without conforming to the provisions as to maximum hours established in this Code.

Such other rules with respect to Trade Practices as may be considered necessary to prevent unfair competition in the Industry may be formulated through Trade Agreements among members of the Industry according to the provisions of Article VIII of this Code.

ARTICLE X—GENERAL

1. This Code and all the provisions thereof are expressly made subject to the right of the President of the United States, in accordance with the provisions of subsection (b) (Title I, Section 10), of the Act, from time to time to cancel or modify any order, approval, license, rule or regulation issued under Title I of said Act and specifically, but without limitation, to the right of the President of the United States to cancel or modify his approval of this Code or any conditions imposed by him upon his approval thereof.

2. This Code, except as to provisions required by the Act, may be modified or amended, such modification or amendment to be based upon application to the Administrator and such notice and hearing as he shall specify, and to become effective on approval of the President of the United States.

3. The records of the National, Regional, State and Divisional Code Authorities, including information obtained from the Industry and in respect to any and all other affairs of such Code Authorities shall be open to the inspection of the Administrator or his duly authorized representatives.

4. Where the costs of executing contracts entered into prior to the approval of this Code are increased by the application of this Code under the Act, it is equitable and promotive of the purposes of this Code that appropriate adjustments of such contracts to reflect increased costs be had.

5. Full recognition is accorded the effect of State laws, and it is neither the intent nor purpose of this Code to abrogate, change or modify the effect of any State law.

6. No provision of this Code shall be so applied as to permit monopolies or monopolistic practices, or to eliminate, oppress, or discriminate against small enterprises.

7. The provisions of this Code shall become effective fifteen (15) days after the approval of the Code by the President of the United States and shall remain in effect until and for sixty (60) days after Title I of the Act shall have ceased to be effective either by expiration under its terms or by proclamation of the President of the United States. When so terminated, all obligation and liabilities under the Code shall cease, except those for unpaid dues and assessments theretofore made in accordance with the provisions of this Code.



Who Is Liable—the Shipper or Truckman?

THIS is the Able Manufacturing Company. We want you to make some deliveries for us. You can pick up the goods at our warehouse. Send that driver named White. He knows how we want our goods handled."

From this telephonic prelude between the shipping department of the Able Manufacturing Company and the Rush Transportation Service there commences a chain of events of far-reaching consequence.

The truck arrives and the Able warehouse employees give friend and driver White a helping hand in loading the goods. The shipping clerk tells him where to go, suggesting a route which will save time. He also asks the driver to make collections for goods delivered at a few places. In one instance he tells the driver to help set up a machine. The truck sets out.

After the truck has been stopped for a red light, a box which apparently had been fastened insecurely falls off and damages a following automobile. The truck driver, having this unfortunate

experience and being somewhat wrought up over it, injures a child crossing the street in what seems definitely to be a clear case of negligence.

A clever attorney, representing the seriously injured infant, believing he can get a bigger judgment against the Able Manufacturing Company, a million dollar corporation, than he could against the small trucker, institutes an action for damages against the former.

The case comes to trial. Evidence is introduced surrounding the relationship of the Able Manufacturing Company and the trucking company and its driver. The court instructs the jury that there is no liability upon the part of the shipper—the Able Manufacturing Company—if the relationship between it and the trucking company were that of a person dealing with an independent contractor. However, if the situation were such that the trucking company had become an agent or if the driver had in fact become the shipper's servant, then the shipper would be liable.

The court states what the law is. If

BY FRED A. ELDEAN
Counsellor-at-Law

COMMERCIAL CAR JOURNAL presents the first of a series of articles dealing with legal phases of motor transportation problems by Fred A. Eldean, an outstanding authority in the field of legal research. Mr. Eldean has lectured on this subject before many law schools and bar associations. His book on "How to Find the Law" is used as a text on legal research in 27 American law schools. Recently he has extensively studied motor transportation problems in preparation of his forthcoming book on Motor Carrier Law.

As Mr. Eldean indicates, this article isn't intended to create any "fear bogey" in connection with motor transport but is designed to point out serious contingencies which can be forestalled. *COMMERCIAL CAR JOURNAL* believes it is rendering a real service in calling these dangers and the means of averting them to the attention of its readers.

there are no facts which would indicate a principal-and-agent or master-and-servant relationship, the court would order a directed verdict for the defendant shipper. However, here the court concludes that there are facts which make it necessary for the jury to determine whether the shipper has become a principal or master and the trucking concern or its driver, an agent or servant.

The jury concludes from the facts that the shipper ordered a special driver and instructed him as to routes, as to collections to be made, and to assist in the installation of a machine, that the driver, while in the general employment of the trucking company, had temporarily become an employee of the shipper and the shipper was liable for the damages resulting from the negligence of its servant.

It is perhaps unnecessary to relate the sequel to this hypothetical case—that the Able Manufacturing Company paid and paid plenty—as such may be assumed in these days when \$25,000, \$50,000 and \$100,000 verdicts in damage suits are not exactly uncommon. So, from the innocent acts of employing a truckman, requesting a particular driver, suggesting a route to be followed, directing him to make collections and to assist in the installation

of a machine, the Able Manufacturing Company had transformed an independent truckman into a servant.

It is perhaps unnecessary to dwell upon the fact that if a person has an agent or servant he is bound to responsibility for deaths, physical injuries, and property damage caused by the negligence of his agent or servant. The difficulty that arises exists in connection with the application of the fundamental principles to the facts of specific situations.

When does a truckman become a servant or agent? In a recent Ohio case against Morris & Co., packers, a jury verdict of several thousand dollars was returned where the following facts existed: Morris & Co., being rushed on deliveries, employed an outside truckman who supplied his truck and a driver to assist in making deliveries. The truck was loaded at the Morris plant. The driver was given instructions as to deliveries, routes he should take and certain collections which he should make. In the course of the day the truckman, while turning around in the street, negligently injured a child who was playing at the curb. The court held it was a question of fact for the jury to decide whether the truck driver was an agent or a servant of Morris & Co. or whether he was an agent or servant of an independent contractor, the person who owned and supplied the truck. In permitting this question to be decided by the jury, the court held that whether the status was one or the other depended upon the amount of control Morris & Co. exercised, there having been some evidence introduced tending to show some exercise of control, such as designation of routes, making of collections, etc. It was then a question of fact for the jury.

• Truckers Are Liable

In a recent Kansas case where a dairy company sold milk at wholesale to persons having their own trucks on which the dairy company permitted them to place its name, its telephone number, and its milk permit number, this was held not sufficient to set up a master and servant relationship inasmuch as the dairy company retained no control, did not direct them where to take the milk and fixed no route nor district, but such persons were free to go where they would and to sell the milk to whom they pleased. (*Browning v. Allvine Dairy Co.* Sup. Ct. Kan. 19 Pac. 474.)

Where a truck with the driver had been rented to an express company which had placed its sign on the truck and which gave the driver instructions, it was held that these facts were sufficient to sustain a finding that the

A Word of Advice

WHILE this article points out the dangerous possibilities in perhaps their most serious light, it is not intended to create a "big bad wolf" against which there is no protection. The truckman should be as anxious to care for the contingencies as should be the shipper. It is possible to protect the shipper by designating the shipper as an additional interest in insurance policies in a sufficient sum to adequately cover a possible award by a jury. The truckman should be interested in seeing that his insurance does protect the shipper. The shipper should be equally alert to see that the truckman's insurance protects him or that he himself has other independent insurance which takes care of such contingencies.

In the absence of the insurance protection, the shipper should avoid any exercise of control over the truckman, giving the truckman discretion in the selection of a route, the vehicle to be used, its manner of operation, the driver to be employed, etc. He also should be chary of participation with the truckman in the cost of maintenance, as contributions which he might make in that connection have been held by the courts to indicate prima facie evidence of agency.

truck driver had become the servant of the express company and it was liable for the driver's negligent acts. (*American Express Co. v. O'Connor* 279 F 997.)

Where a person holding a contract for hauling of goods for a factory employed a truckman for hauling particular loads, the truckman being free after having made the trip to do as he pleased and being subjected to no more control than that he was required to pick up the goods at one place and deliver them at another, the route he took not being fixed for him nor the time except that he received a bonus of \$5 if the goods were delivered within a certain time, the \$5 being deducted if they were not delivered at the specified time, it was held that the trucker was an independent contractor and not an employee or servant and the shipper was not liable under the Workmen's Compensation law for the death of the truckman's driver. (*Fisher Body Co. v. Wade*, Ct. of App. of Ohio, Huron County, 187 N. E. 78.)

The general principle to be deduced from the above cases is clearly stated in *Lassen v. Stamford Transit Company* 138 A 117, 102 Connecticut 76. "An independent contractor is one who,

exercising independent employment, contracts to do work by his own methods without subjection to employer's control except as to result, while a servant or employee is one rendering service subject to employer's will, in mode and manner of performance and means employed, as well as result obtained."

From this it will be seen that where there is no control except as to the result, the manner and means of executing or performing the work not being subject to the control of the shipper, the relationship is that of an independent contractor and therefore without liability on the part of the shipper. How far one may go in specifying anything more than the result to be obtained without getting into the principal and agent or master and servant situation, is difficult to predict. The safe course is the conservative one.

In general, it may be said that when a truck operator is hired to haul merchandise in the truck operator's own truck and on his own schedule, over such routes as he may select, the only control exercised being that of arrangements for payment and a designation of the place of receipt and the place of delivery of the goods, his situation is that of an independent contractor.

On the other hand, should the shipper designate the route or the routes over which the truckman should operate and bind the truckman as to specific phases of the delivery and operation, including the possible element of making collections of money for the shipper, there might arise a question of fact which would ultimately be submitted to the jury as to whether the trucker was in fact a servant rather than an independent contractor.

The fact that the truckman may be hauling the goods of only a single shipper will not affect the situation in the absence of the other elements previously indicated.

• Additional Liability

The Able Manufacturing Company also found itself the defendant in another action brought by the owner of the automobile which was damaged when the insecurely fastened box fell off the truck. Here the additional fact that the truckman had been assisted by the Able Manufacturing Company's employees in loading the truck became of material consequence. This indicates another phase of an innocent-appearing, every-day practice which may have serious consequences.

Still another angle which must be given consideration relates to the possible liability of the shipper to the truckman's driver under the Workmen's Compensation laws. The Fisher

(TURN TO PAGE 24, PLEASE)



This is the latest in flood-lighted "mobile billboards." The lighting is by General Electric and the truck is one of a pair operated by GE between Schenectady and Philadelphia. The floodlights are concealed in troughs above the lettering. And, by the way, what you can't see is a defroster built right into the cowl to use heat from the engine.

First Crankless Diesel

You may have heard that the Sterling Engine Co., Buffalo, displayed a new type of diesel engine at the recent motor boat show in New York City. What you do not know is that it is the factory's intention to build these engines for truck work. The necessary engineering is fairly well along. The diesel is crankless, two-cycle and with opposed pistons. The construction is extremely compact, in part because of the absence of crankshafts, camshafts, cylinder heads, valves and cylinder head gaskets. It is especially adaptable for streamlined vehicles. It will burn the lowest grade of fuel oil.

Re Liquefied Gas Fuels

The Philgas Co., subsidiary of the Phillips Petroleum Co., handling liquefied petroleum gases, has revealed its interest in the butane articles published in last month's number. Heretofore this company has worked only the stationary engine field with its butane and propane fuels. Figure out for yourself if it is being attracted to the truck field.

Heater-Defroster

Skinner Motors, Inc., has a new cab heater which, our Detroit sleuth tells us, does a beautiful job of removing sleet and ice from the windshield and side windows. The heater has a fan in it like a steam turbine. It has three speeds giving a terrific blast of hot air, a medium amount, or slow idling circulation. The fan opening is less than two inches in diameter and can be directed at the windshield or side windows. If you want to know more about it in time for next winter, just write us.

"Steam in the Rear Axle"

A variable speed transmission is being experimented with in New York. The fleet operator doing the experimenting says it is working out wonderfully and speaks of its effect as being the "same as putting steam in the rear axle."

THE EAR- TO-THE- GROUND DEPARTMENT

Inertia-Controlled Shocks

Westinghouse has an inertia-controlled shock absorber. Its outstanding feature is its ability to differentiate between wheel and body motion. Wheels can move freely but motion of the body is impeded. The resistance offered to the body is proportional to the accelerating force. Thus a severe bump brings shock absorber action greater than does a small bump. The absorber also functions to keep the wheels on the road under all conditions, thus assuring perfect traction and greater safety. It has been used experimentally but is not yet in commercial production.

That There Light Diesel

A prominent diesel engine manufacturer expects to have a new, light-weight, high-speed diesel in time for the Indianapolis race. The job will probably rev up around 2000 or 2500. Several new designs are being experimented with.

High Compression Utilizer

We have been informed privately of a device which permits a high compression ratio on any grade of gasoline, particularly on low grade, low octane rating gasolines. Vehicles equipped with the device have been operated with a 7.7 to 1 compression ratio on 55 octane gasoline. The dynamo meter readings speak for themselves and so does a

30 to 40 per cent saving in fuel cost. We'll put you in touch with the prospective manufacturers, if you wish.

A Sleet and Frosty Gadget

A new frost and sleet eliminator for windshields is on the market. It consists of a fan operated by vacuum from the intake manifold. It weighs less than a pound and is attached to the windshield by two suction cups.

Purified Lubrication

K-B, Inc., has placed three sizes of oil purifiers on the market. This equipment removes the water, acids and solids. Dilution is in no way disturbed. Over a period of three years, the manufacturers claim the use of this purified oil actually "brings results unexpectedly superior to oils reclaimed in the conventional manner." One unit processes 2 qt. per day; the second handles 2 gal. per day, and the largest has a capacity of 4 gal. per day. Operating cost on the smaller units is said to average 10 cents per gallon and 6 cents on the large unit.

Diesel Determination

One of the largest truck manufacturers is diligently making experiments with four and six-cylinder types of diesel engines in its camel-back chassis. Three different makes are being considered. It is safe to say that if this company introduced a diesel model the diesel ice, which is now cracked, would be definitely broken.

Out, Out, Da——mned Spots!

The American Chemical Paint Co. is ready to market a new liquid cleaner which is guaranteed to remove with ease and safety mineral oil and dirt stains from cement, concrete, tile brick or wooden floors, and to restore the surfaces to their original condition. The cleaner has been named Amolene. The cleaning process is simple: spill some cleaner on stain, mill around with mop or broom, flush with water. The cleaner will be marketed in concentrated form. G.T.H.

Blue Eagle vs.

The Case Against Federal Regulation of Motor Trucks As

The Trucking Industry Registers Emphatic Opposition to Rayburn Federal Regulatory Bill

A Critical Analysis of the Regulatory Bill

BY HAROLD S. SHERTZ

Counsel, Appearing on Behalf of the American Trucking Associations, Inc.

THE difficulty of regulating truck transportation lies in the complexity of the subject sought to be regulated. Truck transportation is not monopolistic and can be made so only by regulation.

Under present conditions, the shipper has a choice between common carrier trucks. If that does not fit his needs, he then contracts for the transportation service. This he may do in various ways. He may turn over all of his transportation problems to the contract truck on rates agreed upon, or he may lease trucks as a facility by the day, hour, week or month. Such truck may be supplied with a driver, or it may be supplied without a driver. If these means are not satisfactory, he may own his truck.

In the event he owns his truck, he may employ the chauffeur, and maintain the truck himself, or he may contract for a service which will include both the maintenance of the truck and employment of the driver.

So, you run the gamut without any dividing lines. As illustrated by the newspaper publishers, you have one concern so situated as to justify owning its trucks, while the competitor, next door, is forced to hire his trucks.

There are endless overlapping and indefinable classifications. For example, the farmer may with his own truck bring back to his neighbor a farm implement. It may be done as a pure gratuity. It may be done in return for a service given him by the neighbor. It may be done for a direct charge, or it may be done under some cooperative plan. It may be a casual or isolated act, or it may be a regular occurrence. When is it, and when is it not, to be subject to this bill?

Now, there are large owners, that have such a large volume, like the chain



Bachrach
Harold S. Shertz



Members of House Interstate Commerce Com (Tex.); Lea (Cal.); Corning (N. Y.). Photo by

stores, who may own a certain fleet of trucks; and who have to fill in the balance of their requirements with hired trucks.

On the other hand, the small shipper must depend for his means of using the public highway, on a parity with the large shippers, upon the common or contract trucker.

The carrier, for-hire, truck performs for one user what the owned truck does for another. The truck is merely a facility of business, a tool. Its regulation is regulation of the business of the user, for the truck conforms to the schedule of the user and is operated at his direction.

In practice, regulation removes the

unit flexibility, in which truck service is unique; that element in present-day distribution that shippers (of which the newspaper associations can be taken as typical) finds essential in practical operations. The truck fits itself to their schedules. It has released them from enslaving their business to the schedules of the railroads, which, according to sworn testimony, for freight train service, has been in effect for 25 years, despite changing economic conditions and requirements for revamped distribution methods.

Coming now to the analysis of the bill itself, I think more of the practical difficulties under this bill will appear. For instance, under the definition of

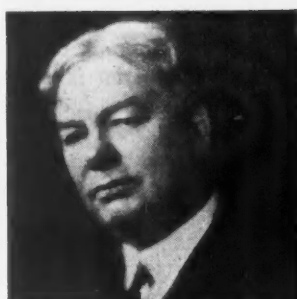
Spread Eagle

Developed at the Hearings on the Rayburn Bus-Truck Bill

Demand for Code Form of Self-Regulation and Before the House Interstate Commerce Committee



Committee: Left to right—Huddleston (Ala.); Rayburn Underwood & Underwood taken for C. C. J.



Judson C. Welliver

There Is No Public Demand for Regulation

BY JUDSON C. WELLIVER

Appearing on Behalf of the American Trucking Associations, Inc.

THERE is no public demand for regulation of highway traffic, save as it has been whipped up by the railroad lobbies and publicity. The 46th Annual Report of the Interstate Commerce Commission says that demand "comes chiefly from the railroads." It is the culmination of a persistent propaganda in which have been enlisted every interest that conceived itself to have a vested right in dividends from an obsolescent mode of doing business. And yet when a committee, the Coolidge Committee, selected by these very interests, two years ago studied this whole problem, it concluded, after months of deliberation:

"The government cannot, for the sake of the railroads, invent or apply to their competitors, either regulation or burden on the theory upon which horses are handicapped in a race. A similar principle applies to railroads, and to the extent that they are handicapped by burdens for which the reason is obsolete or nonexistent, government has a positive duty to remove them. The guiding rule of the whole matter seems to us clear. Government has a positive duty to see to it that neither the railroads nor their competitors are either unduly handicapped or unduly advantaged."

Railroad regulation grew out of the necessity to protect against transportation monopoly. Let me point out that to impose upon highway transportation the same regulation that you have imposed upon railroads, is in effect to restore the old railroad monopoly. There is no significant representation of shipping or trading interest here to demand this measure. Neither the builders of the highways nor the operators of vehicles on them are asking it. All these know only too well that if the railroads,

(TURN TO PAGE 60, PLEASE)

common and contract carriers: you cannot define legislatively what a common carrier is. It depends upon the facts, under the law, in each particular case; yet under this bill in each particular case the regulatory bodies will have to distinguish between a contract carrier and a common carrier, to determine whether the thing to be issued to it is a certificate of convenience or a permit.

Now, that has been difficult under state regulation. The courts have been troubled by it.

What is a contract carrier? The court decisions range from two contracts to 150 contracts, some cases holding that he is a contract carrier and

some a common carrier.

You have another conflict between this bill and the state laws.

Most of the state regulatory laws define a common carrier to be one who operates over regular routes or between fixed termini. This bill has no such limitation so that you would be regulating under this bill the subject one way, and the states would be regulating in another way.

The administrative burden of this bill is placed upon the Interstate Commerce Commission.

The experiment of using state boards is going to be more of a burden upon the Commission than it is helpful.

(TURN TO PAGE 22, PLEASE)

The state commissions have no facilities, despite what has been said here, to contribute to the Federal Government in aid of enforcement of this bill. The difficulty in placing this industry under regulation, is that state regulation has been ineffective in enforcement. As you know, the regulation of purely intrastate trucks has not been accomplished and has not been made effective, and what is the use of passing a bill that cannot be effective?

The Interstate Commerce Commission has no facilities to spare for this regulation. You are now appropriating some \$7,000,000 per year to the Interstate Commerce Commission for the regulation of 724 railroads. Have you ever stopped to think what your appropriations will have to be to regulate in excess of 90,000—and that is a low estimate—we do not know what the number is, but it will be far in excess of 90,000 individual, partnership and corporation truck operators.

You will have to set up an entirely new commission to do this work. The training, the data, the background, of the Commission is not set up to take over these duties even if they could spare the time from their present duties.

There is an attempted grandfather clause in this bill with respect to the common carrier and the issuance of certificates. However, the present operator has no more protection than one coming in new after the bill is enacted, because the matter of whether he has the qualifications suggested in that section, is a matter of discretion with the Com-

The only difference between a certificate of convenience for a common carrier and a permit to a contract carrier is in name. The proof required for a contract carrier to get a permit would be proof of necessity with respect to the area that he was to serve. Generally speaking, the contract carrier is the irregular operator, not operating over fixed routes, but goes anywhere, to these unusual points that one of you gentleman might go from one unusual place to another unusual place. The question, "how could you get a rate without a permit." The answer to that man asked about. He would not do usual place in time to move the goods?" unanswered by the proponents, is that if this bill is enacted there would be no contract carrier that could go from one unusual place to another unusual place. The acceptable proof as to the area that he might cover under the permit would be the average area or what the shippers would say they wanted for their immediate use. That could not include those unusual hauls, which it is the function of the contract carrier to perform. They would not be covered by the permit.

The consideration given by the Association of Public Utilities Commissioners to minimum rates shows an intention to raise truck rates to the level of railroad rates. The purpose of injecting the minimum rate provision for the contract carrier is to measure it by the common carrier rate as the means of protecting the common carrier truck under regulation.

Under this bill there is no protection given the public or means provided to complain against exorbitant rates of contract carriers. The minimum rate must be fixed by the Commission, and is directed to be fixed on the level of the common carrier, but there is no right given in the bill to the public to complain against that minimum which may be an exorbitant, prohibitive maximum rate.

In practice, the public would avoid this regulation of the contract carrier. The proponents properly say you cannot regulate the common carrier truck unless you can regulate the contract carrier truck. In many states, it has been held by the courts that the leased truck-

I will say further that the truck has done more to regulate, prevent increases and regulate exorbitant rates under practices of the railroads, than the Commission has ever been able to do for the public.

By unanimous vote of this Committee,
a resolution was adopted as follows:

In stating this position, I want to emphasize the fact that this organization is not in opposition to regulation of the business of its members who operate trucks for hire.

The existence of American Trucking Associations, Inc., is proof of the desire of the trucking industry to establish higher standards. It was created literally by the National Recovery Act after truck association leaders had been informed by the Administration that trucking would come under the act and thousands of truck owners have increased their employment and support of labor voluntarily under the President's Reemployment Agreement with the understanding that shortly a Code of Fair Competition would be approved by the Administration, under which at least a start could be made toward obtaining the essential facts about the industry and a thorough laboratory test could be made of various methods under which conditions might be improved.

We believe that through self-regulation under the Trucking Code, there is an excellent opportunity to make real headway with our complex problems, and that under the plan proposed in this bill, placing us jointly under the control of the Interstate Commerce Commission and the several state railroad and public utilities commissions, the reverse will be true.



Stop! Before You Convert to Butane And Consider These Warnings

DIESEL power has nothing to fear from butane fuel, because diesel has little to do with the trucking field. The diesel engine has not yet been developed properly for trucks. It is not even a commercial success in that field. This applies especially to small trucks, as there is no diesel engine to meet their requirements, no such diesel engine having been built as yet for the little trucks.

One thing I should like to do is to sound a warning to users and potential users of butane to be careful in installing equipment and to proceed slowly and cautiously. We do not yet know all of the answers to questions regarding installation of butane equipment and if I were to install such equipment for myself tomorrow, I should have to be very careful to work out the exact specifications as to piping, fittings, tank connections, refueling connections and so on.

Many truck owners, eager to take advantage of the saving in cost of operation afforded by butane's use, have been going too fast and acting before our knowledge is definite and certain on all

BY J. GEORGE OETZEL

Chief Engineer, Atlas Imperial Diesel Engine Co., Oakland, Cal.

● In this article Mr. Oetzel (it is a difficult name to pronounce, isn't it?) utters some worthwhile words of caution which are the direct product of his experience with butane in West Coast truck installations.

● He speaks with authority and butane enthusiasts will do well to heed his warnings before they make a move to adopt butane.

● The warnings are intended for operators and for engineers.

points. Many installations have been made hastily, without a full knowledge of the handling of butane, as to proper equipment and its coordination. Consequently, such installations probably will not work out satisfactorily and butane may be given a black eye.

Another thing, we have to be very

careful about the type of packing we use at any point where it comes in contact with butane liquid or gas. Ordinary valves cannot be used, for butane attacks many kinds of packing and you are apt to develop leaks. Some kinds of flexible metallic tubing employ packing and therefore should not be used. For if a leak develops, considerable fuel may be wasted.

We of the Atlas-Imperial company, which has developed and manufactured the butane carburetor used by the Butane Sales Co., realize fully the possibilities of butane. It is clean, nice to handle and makes an economical fuel. But we must remember there is a limited supply of it. Also, there are certain logical fields wherein butane has an advantageous application. For that reason, we have not tried to exploit it, but have endeavored to follow its normal development.

We started to convert our engines to use natural gas two and one-half years ago. We found no carburetor on the market for such a purpose, so we began to make our own. But natural gas of 1100 B.t.u. per cu. ft. did not offer

wide enough range for experiment. We found propane, which has 2500 B.t.u., and butane, which has 3200 per cu. ft. We knew we should have to sell these in natural gas countries and that the B.t.u. in gas varied according to the locality. We wanted a mixing valve that would serve for both butane and natural gas. About that time the oil companies began marketing butane, so we felt there would be a market for a mixing valve designed for use with butane, and that the mixing valve had a value then not solely experimental.

Our type of engine is a heavy-duty, vertical Diesel. It can be converted to the use of either butane or natural gas, but it is not suitable for anything but stationary service. This determined that the engines must be able to drive alternating current generators, which is important for two reasons: First, the governing must be nearly perfect, with regulations that permit constant speed. Second, the engines must have high overload possibilities. This is necessary because when the overload hits the generator, in starting a large motor, for example, the engine must be able to respond without much loss of speed.

• *Characteristics of Valve*

These two things determine much of the characteristics of the valve. We had to get the maximum load out of it and the pressure drop through the valve must be at a minimum. The valve, in a sense, is a throttle, and any point where you throttle the air entering the engine tends to lower its capacity. By reducing the throttling effect we get the maximum power.

The result is that on several engines, our own included, to which these valves have been applied, we have developed 120 lb. of brake mean effective pressure. The usual gasoline engine in the ordinary truck develops a maximum of 90 m.e.p. So we have a lot of power.

There are dangers from a manufacturer's standpoint in the conversion of gasoline engines to butane. For if you do all of these things, as to compression ratio, manifolds and so on, and get all of the power possible, you are going to burn up your valve seats. In converting engines I think 7 or $7\frac{1}{2}$ to 1 is as high as it is practical to go. We prefer to stay with $6\frac{1}{2}$ to 1. With that ratio the compression pressure is about 140 lb. That means that when the engine is firing a maximum pressure is developed of from 700 to 750 lb. If you go to a 12-to-1 compression ratio you are in the Diesel class and the motors are not built to stand it. Instead of converting your engine, you would have to have one built for butane alone. Even if you go only to $6\frac{1}{2}$ to 1, or do not raise your ratio at all, you are apt to burn the valve seats. To avoid this

you should put in valve-seat inserts. Many of the new engines have these.

Another danger is that so few people know how to make the application of this new fuel correctly. We had trouble at first in gasifying the fuel and in supplying gas to the mixing valve without giving it any liquid at the same time. You see, you have no exhaust gases with which to heat the liquid and convert it into gas until after you have started your engine. That accounts for the trouble many have had in starting their engines with butane. We avoid that trouble in this way: Instead of merely supplying gas to the mixing valve from the top of the heat exchanger, as many equipments do, we supply it from the top of the storage tank, as well as from the heat exchanger. This equalizes the pressure in the heat exchanger and the storage tank, so that no liquid can be drawn into the pressure regulators and the mixing valve. This permits ready starting, as long as the atmospheric temperature is high enough to cause vaporization in the storage tank. When the atmospheric temperature falls to about 25 to 30 deg. there is no vapor pressure in the tank, and consequently heat must be added to effect starting.

We have automatic regulation of the heat exchanger. A check valve stops the flow of gas from the heat exchanger back to the storage tank when the heat exchanger warms up and forms gas faster than the engine uses it, so that the pressure in the heat exchanger becomes higher than that in the storage tank and some of the liquid is forced back into the tank. The level of the heat in the heat exchanger is thus forced down until there is just enough heating surface in contact with the liquid to form gas at the rate at which the engine is using it.

• *A Limiting Factor*

One thing which will tend to limit the application of butane as a fuel for trucks is the fact that they must carry tanks for their fuel supply with them. This is all right if the truck is on a regular run, but if it is going to different and unscheduled places, since it cannot refuel en route, the distances to be traveled must be figured in advance and a sufficient supply carried to get home again.

The most logical field for butane is in a railroad motor train, where they are operating on a regular schedule and can maintain refueling facilities. On the first train installation two motors, before that, were operating on distillate, or stove oil, and developing 300 hp. each. After conversion to butane, with increased compression and larger intake manifolds, these motors now develop 420 hp. each. The highest horse-

power obtained on gasoline was 375.

The next most logical field is the small stationary or irrigation plant, where the lower first cost of the engine, for butane, partially offsets a somewhat higher fuel cost, as compared to the cost of Diesel power.

Of course it is also a perfectly logical fuel for truck use when the truck is on a regular run and refilling facilities can be provided. In this connection, it might be interesting to note the comparative amounts of fuel required, in the three fuels under discussion, to produce a given amount of power. Gasoline, which contains 6.5 lb. to the gallon, requires one-tenth of a gallon to develop 1 hp. for one hour. Butane, which weighs 4.8 lb. per gal., requires 0.096 of a gal. for the same amount of power, and Diesel oil, which has 7.3 lb. in a gal., requires 0.0575 of a gal.

WHO IS LIABLE—THE SHIPPER OR TRUCKMAN?

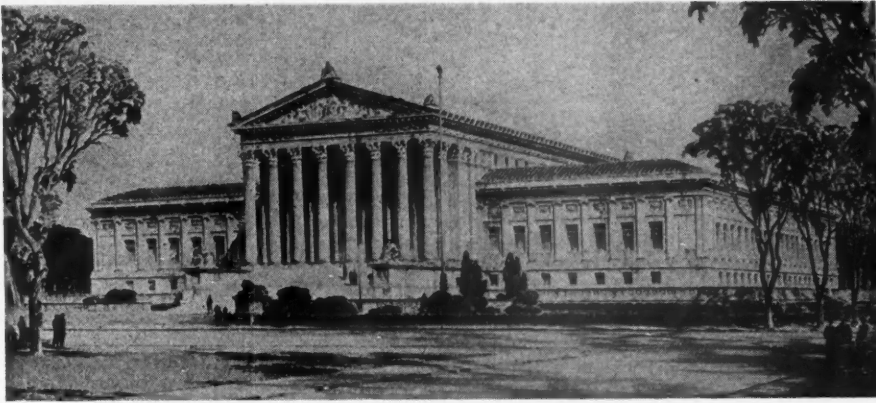
(CONTINUED FROM PAGE 18)

Body Company case cited above brought out the possible danger of the shipper becoming liable for injury sustained by the driver under the Workmen's Compensation laws if the driver becomes a servant of the shipper.

In a recent New Jersey case (*Murphy v. Core Joint Concrete Pipe Co.* 164 A 262), where the driver of an independent truckman was injured when a concrete pipe fell from the truck, the court held that he was an "invitee" and not a mere "licensee" upon the premises and as such was entitled to the protection required by the law relating to invitees. Under this law the owner must exercise ordinary care to render the premises reasonably safe.

While this last case does not involve the question of principal and agent or master and servant directly, it nevertheless presents another element to be considered by the shipper in his relationship with the truckman.

The shipper's liability will not be altered by a written contract expressly specifying that the truckman is an independent contractor if in fact the situation is such that the truckman is an agent or servant. In other words, the court will look beyond the contract to the actual facts of the case. This is subject to one exception: if the shipper has the power to control the truckman as an agent or servant but does not actually control him, courts have nevertheless held that the truckman is an agent or servant. In other words, the power to control will be the determining factor in that type of situation.



Architect's drawing of U. S. Supreme Court Building, Washington, D. C.

Court Decisions Handed Down in Truck Cases

Carrier Law Upheld

Hicklin v. Coney et al., U. S. Supreme Court

STATE may require reasonable licenses, fees, and the filing of a public liability policy by both interstate and intrastate private contract motor carriers. Requirements held not invalid as compelling private contract carrier to become common carrier. Decision of lower court construing state statute as not requiring cargo insurance of contract motor carrier held controlling on appeal to the United States Supreme Court. Licenses and fees based on carrying capacity held not invalid where collected for purposes of maintaining highways and where statute required that monies collected be segregated for such purposes. The exemption of farmers and dairymen hauling farm or dairy products as relating to those principally engaged in farming or dairying and occasionally transporting farm and dairy products for compensation held not invalid. Exemption of lumber haulers from forest to shipping point also held not invalid.

Driving Not Hazardous

Southwestern Cotton Oil Co. et al. v. Spurlock et al., Sup. Ct. Oklahoma

THE Southwestern Cotton Oil Co. arranged with one George Turner to do some hauling by truck; he in turn employed one Jimmie Bean, who owned a truck; and Bean then employed the claimant, Charles E. Spurlock, as an assistant or a helper on the truck. On Oct. 16, 1932, while repairing the truck in an alley back of Bean's home, a flying splinter of steel struck claimant in the eye. Without deciding whether the injured person was in the employment of the Southwestern Cotton Oil Co., the court held that the operation of a motor truck is not a hazardous employment within the Workmen's Compensation Act.

Tool Lack Is Negligence

Brown v. Murphy Transfer & Storage Co., et al., Sup. Ct. of Minnesota

JURY verdict that defendant was negligent in not keeping his motor truck equipped with tools handy, plank or other adequate footing for a jack so that a tire change could be made without parking on the pavement, was upheld. In this case the defendant's truck was stopped on the pavement because of a tire blowout. The truck was not equipped with a plank which could be used as a base for the jack and consequently the truck had to be left on the pavement. The driver stopped a truck of another company and borrowed equipment from it. While the two trucks were so stopped, passenger car ran into one of them. The court held that the jury could consider the fact that the first truck did not have sufficient equipment to make the repair on the shoulder of the road rather than on the pavement itself as an element of negligence. Court further held that the driver had implied authority in an emergency to employ assistants. The court further held that the company which owned the second truck which stopped to assist the first truck was also liable as its negligence contributed proximately to the result.

Driver Authority in Pinch

Barrier v. Thomas & Howard Co., Supreme Court of N. Carolina

ALTHOUGH truck driver had no express authority and under ordinary circumstances no implied authority to employ a driver of another truck and thereby establish the relationship of master and servant or employer and employee between the defendant and said driver, he would have this authority in view of the emergency which confronted him—his truck having broken down and it being necessary for him to have aid in getting repairs.

FREE TO READERS

Commercial Car Journal will be glad to procure expert legal advice for any reader who is faced with a legal problem involving a motor truck. There is no charge for this service. Inquiries made in confidence will be so honored. Just address your letters to The Editor. For a sample of the service see item on page 20 headed "Shipper's Liability."

Competitive Operations

York Motor Co. et al., v. Public Service Comm. et al., Pa. Superior Ct.

TWO common motor carriers are not in a position to complain of Commission ruling granting a third motor truck operator the right to transport freight for five companies between points served by the two motor carriers where the five manufacturers required a very considerable service and a more flexible one than would be furnished by the two motor carriers or the rail carriers. The duty imposed upon a carrier to serve those within its territory is for the benefit of the customer and it is not always necessary or proper to require the carrier to serve all those who have access to other carriers. The court cannot disturb the commission ruling which is based upon competitive and relevant evidence unless it clearly appears that the action is unreasonable and not in conformity with the law.

Who Are Common Carriers

George et al. v. Railroad Comm. et al., Supreme Court of Calif.

EVIDENCE held to sustain Railroad Commission finding that motor freight carrier who issued freight bills and standard bills of lading was operating as a common carrier. These facts coupled with the fact that although the carrier had refused shipments where, it was observed, the carrier already had all the freight which it could conveniently handle, were sufficient to sustain the finding that he was operating as a common carrier.

Spare Tank Law Out

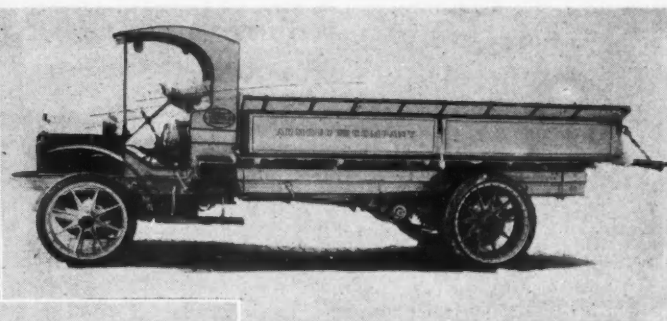
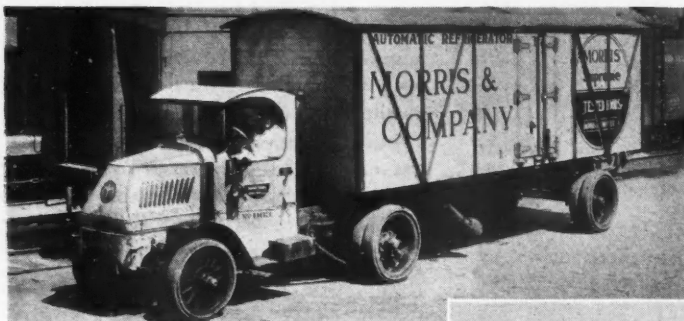
Sweat, Sheriff v. Turpentine & Rosin Factors, Inc., Sup. Ct. of Florida

STATUTE prohibiting auxiliary gasoline tanks on motor vehicles held unconstitutional because it discriminates between auxiliary tanks containing gasoline to be consumed by the vehicle which carries it and the auxiliary tanks carried on vehicles in which the gasoline is not intended to be consumed. The court holds it is equally hazardous in either instance and therefore cannot be justified as a police regulation.

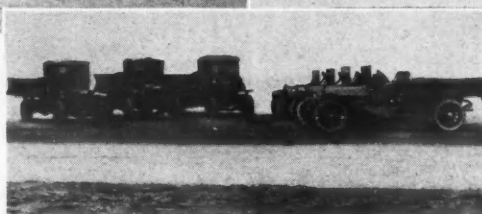
Interstate Tax Upheld

Lind & Goesen v. McCoy et al., Dist. Ct. Burleigh Co., N. D.

INTERSTATE carrier mileage tax held constitutional.



BY FRED L. FAULKNER
Automotive Department
Armour & Co., Chicago



Examples of the older types of equipment in the Armour fleet which were replaced by means of a comprehensive survey of the work for which the new vehicles were intended

First Survey the Job, The Truck That

AS stated previously (see article p. 23 January issue entitled "The Fleet Manager's Problem Today is to Make Trucks Earn More"), the unit cost per mile or per day indicates the efficiency of the vehicle, but unless we know the work that unit is doing we do not have a measure as to the hauling efficiency.

We use a very simple, yet comprehensive system, for determining the work factor of each unit. We do not request, and we do not find it necessary to bring into the Chicago office sufficient data monthly to determine the usage of each individual truck. We do keep on file, however, a complete survey of each operating point which shows the physical characteristics of each vehicle, such as gross rating, body type and size, tire sizes, and all physical data relative to the equipment.

We show further the work that each truck performs covering the period of the last survey. This information includes the route layout of each vehicle, showing tonnage hauled per trip, number of stops, miles per trip, time leaving branch and returning from each trip, and all data are summarized, showing the average load, peak load, average time on the route, peak time on the route, idle time, average time operated, and finally summarized into cost per day, cost per mile, and cost per cwt. to deliver for each vehicle.

These surveys are made from time to time as necessity demands or conditions warrant. As an example, if an operating point requests additional equipment, or increased capacity on the replacement of a unit, we immediately make a survey, checking the delivery activities of that operating point for a full week, to determine the soundness of the request. The survey forms are made up in such a manner that no one individual furnishes all information. The major part is furnished by the shipping department. The physical characteristics of the set-up are furnished by the traveling mechanic and the statistical information is furnished by the office department. Summary sheets are not furnished the operating point, and as a result they have no way of determining the final answer, as the data from three separate sources are furnished the Chicago office where same is summarized and analyzed. The advantages of such a survey are apparent.

The above procedure has enabled us to balance out the requirements of the various operating points to a very fine degree. We uncover many discrepancies that would not otherwise be apparent. We have a definite check on the ability of the shipping clerk to equalize his load and minimize overloading. On a moment's notice, we can furnish our sales department a complete operating

picture at a given point, which enables it in many cases to dispose of a problem which formerly required several weeks to develop the necessary information.

Our operating people in the field have begun to appreciate the help these intensive surveys afford to them when they are badly in need of equipment, as it simplifies materially their job of proving their case. The effectiveness of this type of control is best reflected in our first year's experience with the survey system. It enabled us to effect a large number of transfers of equipment from point to point, enabling us to obtain better standardization, and a much higher degree of hauling efficiency.

We spend considerable time in trying to fit the proper motor vehicle to the job. The actual purchase of the unit takes the least amount of time. Our job is to purchase transportation not just motor vehicles. It is very difficult at times to get the right truck on the job, due to the many factors that enter. The make of vehicle you may prefer to purchase on account of local service facilities may not be the one that you are forced to buy on account of the inability of the manufacturer to furnish you either the proper wheel-base, proper axle ratio, proper tire size, etc.

There has developed in the past few

IN a preliminary article published last month Mr. Faulkner argued that it was the fleet manager's job to increase the efficiency of his entire operation which meant, briefly, that he would have to try to get the maximum in earning power out of his vehicles.

● In this supplementary article he deals with the task of accumulating operating data on which to base decisions on what is the proper type of vehicle for a particular job.

● This procedure he refers to as the automotive work survey. The questionnaires and work sheets which Mr. Faulkner uses in the compilation of this vital information are shown at right.

Then Buy Fits It

years a peculiar condition as concerns the merchandising methods employed by manufacturers of motor vehicles. We find a tendency towards over-rating of the vehicle both from the load-carrying and performance standpoint. We have been in a buyers' market for quite some time and the buying price of the vehicle has been a very important factor. A practice has crept into sales methods which has been very discouraging. The average salesman, rather than hold his ground on the model on which he has quoted to meet certain definite operating requirements, will give way to the temptation of quoting a model with less capacity in order to get his selling price in line.

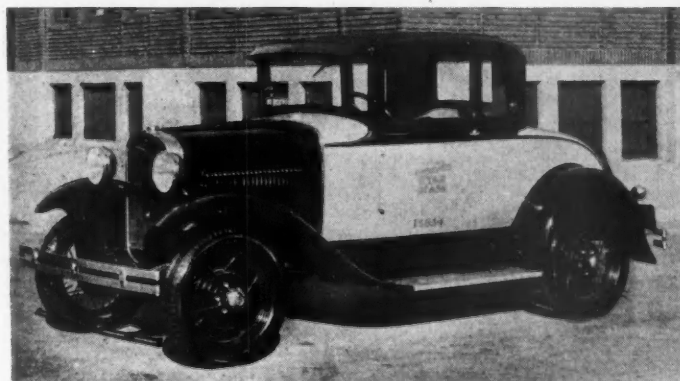
There appears to be a definite need

in the automotive industry for a better understanding of facts, both on the part of the buyer and the seller. Manufacturers of motor vehicles have been slow in recognizing the difference between an economical transportation unit and just a motor truck. They are finding today, however, that a line of motor vehicles, which are designed to

meet the field demand are more readily merchandised than a line of motor vehicles which have been built according to the ideal of designing engineers, from that standpoint alone, or to facilitate production methods. Every indication points to a better understanding between the manufacturer and the operator.

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Questionnaires and work sheets used in the automotive survey



Examples of the new equipment installed after thorough work surveys

Bang! Goes a Trucking Myth—the 300-Mile Economic Limit

BY ATHEL F. DENHAM, C.C.J. DETROIT EDITOR



YOU can't set a mileage limit on economical truck haulage. That in a nut-shell, seems to be the major answer to an investigation on the subject conducted by Fruehauf Trailer Co. Somehow or other there has grown up in the minds of many shippers, operators, etc., a belief that there is a limit of around 200 to 300 miles above which shipments by truck become uneconomical.

Any such assumption, the Fruehauf study indicates, must have been made without taking into account territorial conditions and types of freight hauled. Furthermore it is not necessary to charge either more or less than rail or rail-water rates to operate profitably on hauls way in excess of 300 miles one way. Rail rates will do it.

THIS article, based upon facts collected in an investigation conducted by the Fruehauf Trailer Co., explodes with a detonation that will be disturbing to enemies of truck transportation their oft-repeated contention that beyond the 200 to 300-mile limit truck operation is uneconomical. The facts revealed here cover a variety of operations and a variety of operating conditions extending from coast to coast.

Just let's look at some of the individual company reports. Here is an operator running between Charlotte, N. C. and New York City. With pick-up mileage, the one-way run is approxi-

mately 700 miles. His rates are the same as rail or rail-water. He delivers in from 37 to 45 hours, as against a normal all-rail delivery time of five to six days, with a minimum delivery time of rail-water never less than 96 hours.

He charges rail or rail-water rates and the shippers are giving him an increasing amount of business. Since July, 1931, when the operation was started with 12 tractor-trailer or pick-up vehicles, the operation has grown to more than 100 units in the Charlotte-New York service alone.

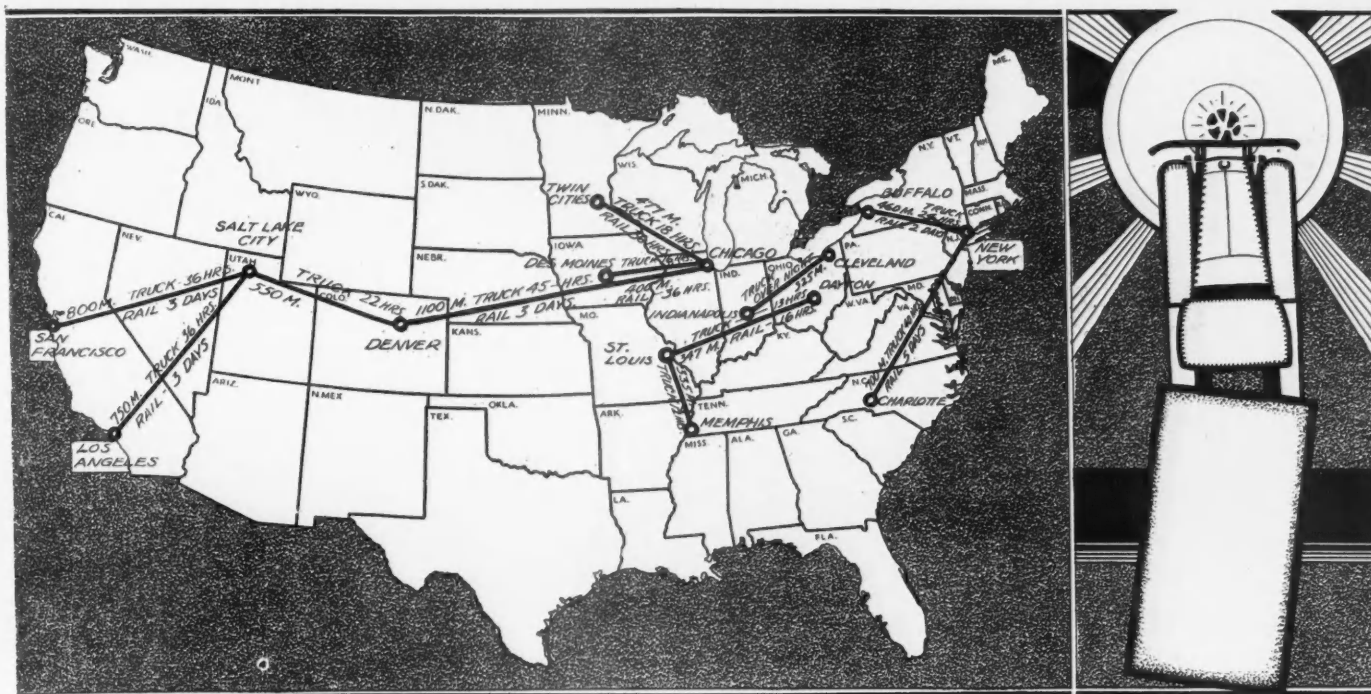
It has definitely been a profitable operation. Why? The answer seems to be that for long distance hauling the cost of warehousing, administrative offices, cost of pick-up, etc., repre-



This is a tractor-semi-trailer combination similar to many that have extended the economic limits of transportation over the highways of the country. The trailer is by Fruehauf



The railroads are finally realizing that the truck can be profitably coordinated with rail hauls. This trailer by Martin Fifth-Wheel is used by the Pennsy in store-door service



● On the map above are indicated the trucking operations referred to in the accompanying article. In practically every case a comparison of the trucking time and the railroad time is made, showing the superiority of truck transportation over rail service in hauls as great as 700 and 1100 miles

sents a smaller portion of operating costs than for short hauls. In other words the truck is up against the same basic terminal overhead problem as the railroad. Long-haul operations can be carried on at a lower ton-mileage basis just as in the case of railroads.

That's one section of the country. Now let's turn to the western open spaces. Here a haul of less than 300 miles would mean very little. Denver-Chicago is a typical 1100-mile route. Rail time is 72 hours from dock to dock. Doesn't look promising for the truck? Perhaps not, but truck operations on this route are growing. Delivery time averages 45 hours. On perishable merchandise this is important. Modern refrigerator body equipment moreover has demonstrated better merchandise condition on delivery. Twenty to twenty-two thousand pounds of payload are being hauled with a gross vehicle weight of 38,000 pounds. Railroads cannot duplicate that performance economically, particularly with LCL freight.

Moving farther west to Salt Lake City, we find deliveries by truck to Los Angeles, 750 miles, or San Francisco, 800 miles, taking 36 hours. Best rail service from Salt Lake to Los Angeles is three days. Twenty-two hours from Salt Lake delivers anything by truck to Denver 550 miles to the east. These operations have grown up in the past year or so in the face of existing depression, and are becoming increasingly profitable in spite of railroad attacks.

Buffalo to New York is a hilly trip of 460 miles one way. Yet trucks, by being able to deliver in a little over 24 hours as against more than two days by rail, are getting general freight haulage from shippers. The line has been in operation 2½ years and is growing.

Chicago to Minneapolis is a run where railroads have done much to get business on a business basis—by giving better service. But rail delivery still takes 36 hours for general freight and perishables for the 477 miles, as against a truck haulage time of 18 hours. The truck trailer line has been in operation 3 years and growing.

From Chicago into Iowa—Des Moines and Waterloo—truck fleets for the last three years have delivered over a 400-mile one-way stretch on a 16-hr. basis as against 36 hours by rail, a strong argument for truck shipment.

Further east again, rail freight rates in and out of Akron have been cut to the bone in the hope of killing off the truck. But operators by giving more rapid delivery service, by operating with modern equipment, carrying loads both ways, and avoiding more than an 8-hr. lay-over at either end have been able to make profits on trucking to

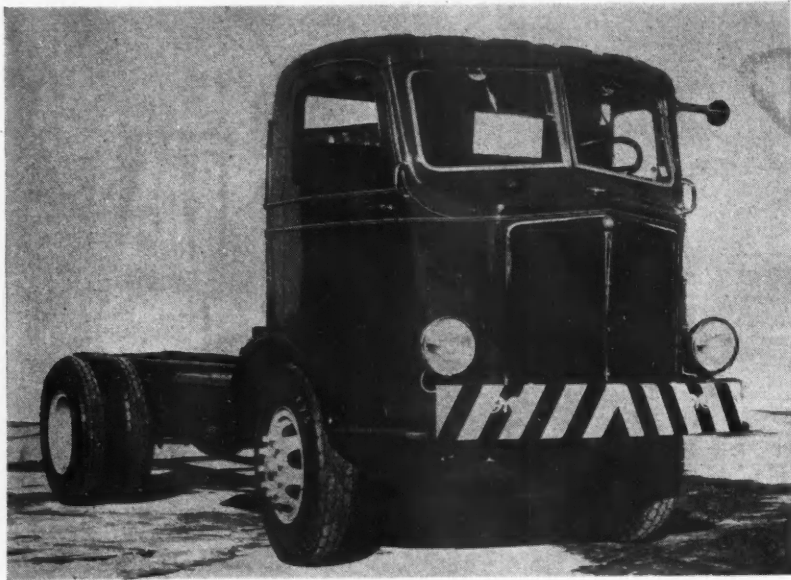
major points within a 400-mile radius, maintaining terminals in the cities which they serve.

Out of Dayton, Ohio, to St. Louis, a matter of 347 miles, truck running time is 13 hours. Inaugurated as recently as May, 1933, the trucker has been making good headway on the basis of flexibility of service, even though actual running time saves only from 2 to 5 hours over rail. Shippers on an equal cost basis seem to be gathering a growing preference for the truck service.

The above route was installed as the result of successful operation by the same company of a run between St. Louis and Memphis—335 miles, with a one-way running time of 12 hours—continuous in operation and profitable since its inception back in 1929.

Cleveland to Indianapolis is a matter of 325 miles one way. A trucker started to operate this run last winter with one tractor-trailer unit of their own and one hired unit. They delivered overnight. Was the venture a success? It is only twelve months since the operation started but the trucker has already purchased five new tractors, seven new trailers and two dollies to keep up with business and is hiring from three to six units in addition.

These, and similar reports received by Fruehauf Trailer Co., seem definitely to indicate that road haulage can't be limited to a definite mileage to be economical. It's about time, it would seem, that the 300-mile maximum were "seen and raised."



This cab-over-engine model shows the attention paid to appearance

THREE cab-over-engine models lead the parade of the new General Motors heavy-duty truck line for 1934. The complete line, ranging from 9500 lb. gross load to 30,000 lb., is offered in three distinct types. Models T-18 to T-43T have the conventional axle position with load distribution of 25 per cent front and 75 per cent rear. Models T-51 to T-84 have a set-back front axle resulting in a weight distribution of 30 per cent front and 70 per cent rear. The three cab-over-engine models have weight distribution of 33 1/3 per cent front and 66 2/3 per cent rear.

All models are thoroughly redesigned for heavy-duty performance and are equipped with coach type sheet metal in keeping with this heavy duty.

The 331 and 400 series engines are the same as they were in 1933 except for detail design changes of importance to the operator, all engines in the line being of overhead valve construction. One major change is the location of the water pump at the front end at the fan pulley.

Complete specifications on the entire line as well as the prices available at the time of going to press will be found

in the specifications tables in this issue.

The 450 engine is similar to the well-known 400 series except for the bore which is 4 3/8 for the former and 4 1/8 for the latter. On both engines the oil cooler is positioned at the front end where it is readily accessible. The fan drive is of heavy construction mounted on roller bearings. Generators are belt-driven with plenty of space to permit optional capacity rating sizes.

The new 450 engine develops 120 hp. at 2300 r.p.m. and 340 ft. lb. torque at 800 to 1200 r.p.m. It is fitted with a hard chrome nickel iron cylinder head, tulip type exhaust valves, and stellite exhaust valve seats for long life and low-cost maintenance. All main and connecting rod bearings are of aircraft engine construction, thin wall precision type, of a steel backed copper-lead alloy.

All exhaust valve heads are now of special austenitic steel—21 per cent chromium, 12 per cent nickel—the structure of which is said to resist high temperature effects. Valve stems are of heat-treated, chrome-nickel steel with special hardened tips.

Cab-over-engine models are designed

Cab - Over - GMC Lines

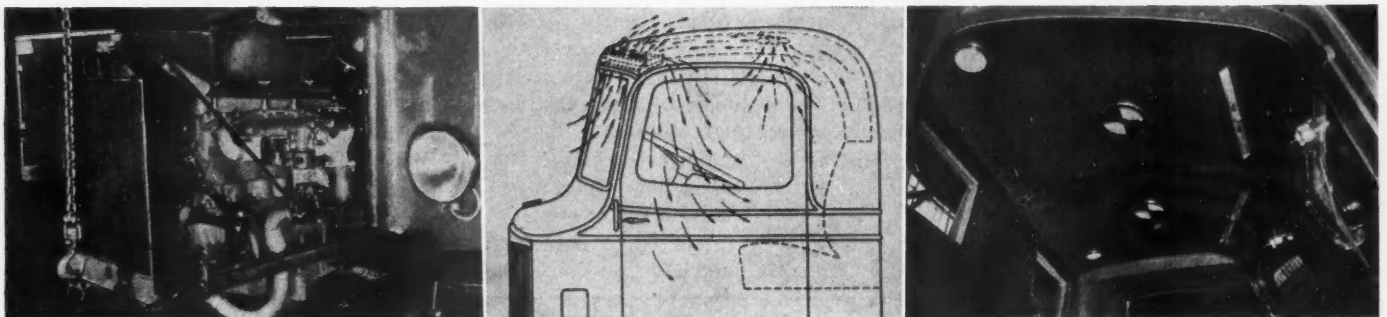
to meet the present demand for better weight distribution, more payload with legal axle loading, and shorter train length for the same capacity. This design permits a better utilization of front-axle carrying capacity by shifting about 8 per cent of the total gross weight forward.

Driver comfort as well as service accessibility have been engineered into the design of the cab-over-engine models.

To assure driver comfort the design embodies first a means of carrying away engine heat by a wind tunnel engine shroud which conducts the under-hood air and gases to the under side of the body mounting. The second feature is a patented ventilating system built into the cab construction. Fresh, cool air is taken in through ducts above the windshield and led into the interior by means of hand-controlled doors which can be adjusted by the driver to allow as much or as little as he may want. Air is exhausted from the compartment by ventilators in the ceiling. This air is taken through ducts in the roof and drawn out by the suction over the cab through openings in the roof at the front of the cab. The whole arrangement is flexible and weather-tight.

For service accessibility, adjustments or repairs to the valve mechanism are readily accomplished from within the cab by simply lifting the hood. For major adjustments or overhaul, the entire engine unit can be slid out in a very simple fashion.

For this purpose, the powerplant is mounted on a sub-frame which runs on



Left—Showing how the engine slides out of the chassis for overhaul or adjustments. Center—Schematic drawing of the patented ventilating system's method of operation. Right—Showing the position of ventilators in the cab roof

Engine Models Head Meeting 1934 Needs

rollers in the side rail. To slide it out, the bumper is just removed by taking out the studs at the front, the radiator grille is swung out on its hinges, and the unit may then be pulled free of the chassis by attaching a crane hook to its front end.

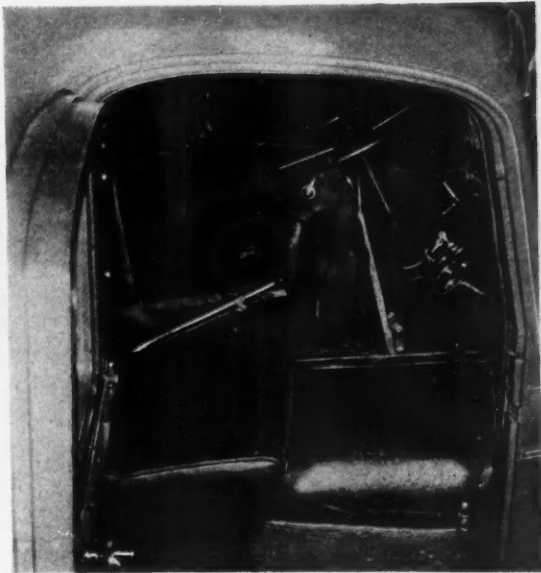
The 1934 trailer line features bigger brakes with B-K booster power, tubular rear axles, and one-piece drop frames. Four-wheel trailers now feature an improved turning circle achieved by an interlocking ring design which eliminates the two clamps formerly used to hold the upper and lower sections. Two automatic models are available featuring a screw type full automatic construction operating on the same principle as a Yankee screw driver.

Larger truck models, T-83 and T-84 series, are equipped with Westinghouse air operated brakes with Westinghouse shoes, individual diaphragms for each wheel and slack adjusters. This equipment is also available optionally on the T-61 series. Where air brakes are used, the compressor is mounted at the front end of the engine on the left side and are driven by belt.

All heavy-duty models are fitted with large spring bumpers. Entrance to the cab on cab-over-engine models is by a step at the front end ahead of the wheel housing, the door being hinged at the rear.

Cross rating on the set-back front axle series T-51 to T-83 has been increased by 1000 lb., the model T-84 being increased by 2000 lb. On the standard models, the T-18 and T-23

This cab close-up shows accessibility of the top of the engine. Lifting the hinged hood section exposes the valve mechanism



carry 500 lb. more gross, while the T-33 has been stepped up 1000 lb.

On cab-over-engine models the wheelbase options are as follows: T-73, 94-106-124-142 in.; T-75, 94-106-124-142-160 in.; T-78, 94-106-124-142-160 in. Body length back of cab on each of these models is as follows: T-73, 10 ft. 6 in., 12 ft., 15 ft., 18 ft.; T-75, 9-11-12-15-18 ft.; T-78, 9-10-12-15-17 ft., respectively corresponding to each wheelbase.

Brakes on the cab-over-engine models are vacuum booster-operated Bendix two-shoe internal, expanding on all four wheels, on the T-73 and T-75 while the T-78 has the Westinghouse air brake equipment which is standard on series T-83 and T-84.

New wheelbase lengths of 140¾ in. and 164¾ in. give the model T-18 load spaces which conform to the S.A.E. standards for 9 and 12 ft. bodies. Prices on the T-18 are \$625 for the "A" wheelbase and \$650 for the "B" wheelbase.

The model T-23 with its increased gross rating incorporates all the features of the T-18 except that certain units such as the rear axle, tires and brakes are of larger capacity. On this series the price of the "A" wheelbase chassis is \$795 and \$820 on the "B."

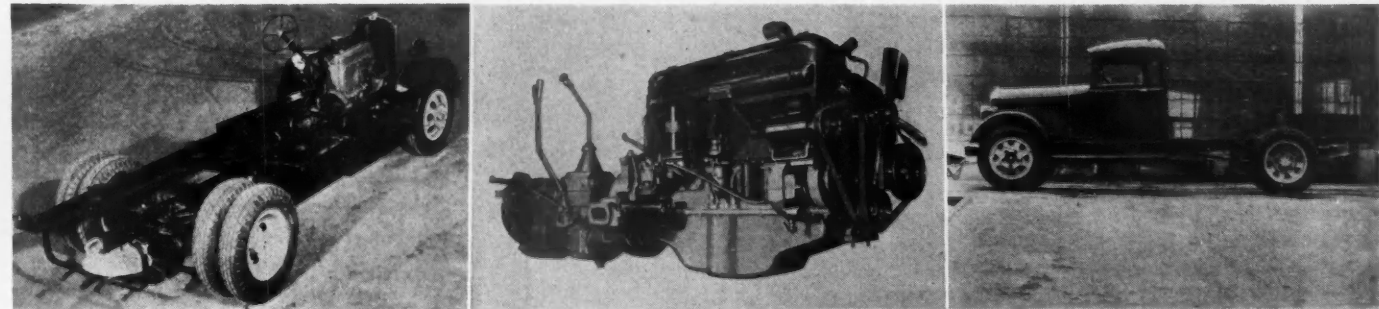
General Motors Truck 1934 Line (Showing gross ratings and weight distribution)

Model	Engine	G.V.W.
Conventional axle design (25% front; 75% rear)		
T-18	221	9,500 *8,500
T-23	221	11,000 *10,500
T-33L	221	12,500
T-33	257	14,000 *13,000
T-43	257	16,000
T-43T	331	16,000

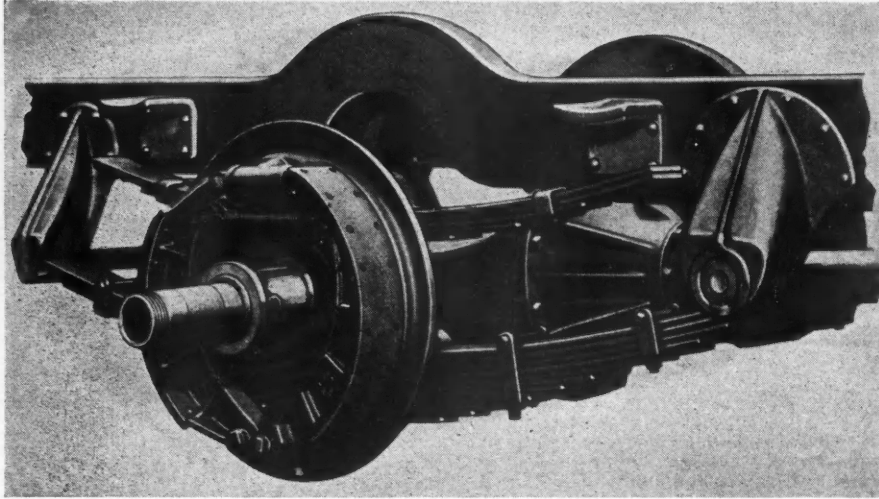
Set-back Front Axle Design (30% front; 70% rear)		
T-51	331	20,000 *19,000
T-51H	331	23,000 *22,000
T-51W	331	23,000 *22,000
T-61	400	23,000 *22,000
T-83	400	26,000 *25,000
T-84	450	30,000 *28,000

Cab-over-Engine Design (33 1/3% front; 66 2/3% rear)		
T-73	257	15,000
T-75	331	24,000
T-78	400	30,000

*Previous rating.



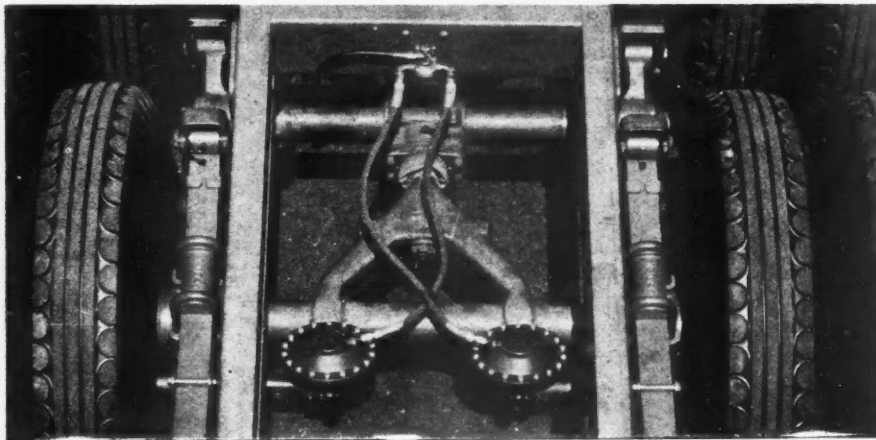
Left—A view of the new General Motors T-33 chassis. Center—The powerplant of the 400 and 450 series has double belt drive for accessories. Right—The new T-18 is typical of the heavy-duty line featuring coach-type sheet metal



• FEDERAL •

THE Federal Motor Truck Co. has brought out three bus chassis with low frames kicked up over the rear axle, which are also adapted for

truck work where a specially low body mounting is desirable. The three models designated B15, B20 and B25 carry nominal tonnage ratings of 1½, 2 and 2½ respectively and 10,000, 12,000 and 14,000 lb. vehicle gross weight. They are all similar in general design and

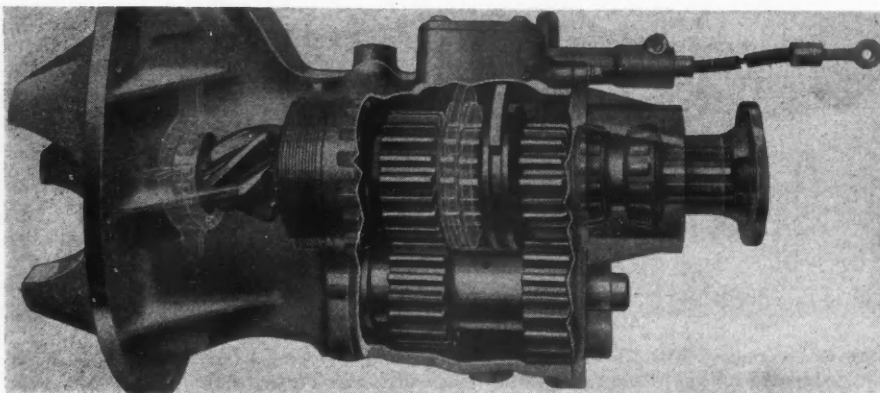


• TRUCKTOR •

THE Trucktor Corp., Newark, N. J., which manufactures Trucktor units for attachment to truck chassis, designs the units to mate with and become an integral rear end of the truck. Frame extensions are provided as needed but in many instances extra

length frames with suitable cross members are obtained on order from the truck factory and the Trucktor unit is then applied without any change in the truck frame.

The Trucktor provides three points of frame support on each side, the foremost being the front end of the truck front springs, the second in a round cross member mounted on brackets be-



FEBRUARY, 1934

are powered by Hercules six cylinder engines and embody four wheel hydraulic brakes, tapered channel frames with maximum depth of 8½ in. and full-floating type rear axles.

Model B15 has a 3⅜ x 4¼ JXA engine of 228 cu. in. piston displacement, Warner unit-mounted T-9 transmission and a Clark rear axle. Model B20 has a JXB 3⅜ x 4¼ in. 263 cu. in. engine with unit-mounted Warner T-9 transmission, a Timken 54200-H rear axle. Model B25 has the same bore as the other two, engine with stroke of 3¾ in. gives piston displacement of 382 cu. in. The transmission is a Clark R-109 unit-mounted five speed, the rear axle is a Clark B640. Rear springs on all models are underslung with auxiliary semi-elliptics mounted on top of the axle housing. No lubrication is required on the rear springs because the rear ends of the rear springs slide in brackets.

Wheelbase lengths on Models B15 and B20 range from 162 to 187 in., and on Model B25 from 162 to 201 in.

neath the truck frame with a rocker arm on each end. Ends of the rocker arm are attached to the rear end of the front spring and the front end of the extra Trucktor spring by extra length shackles. The third point of support is at the rear of the extra Trucktor spring which slide in brackets on the frame well to the rear of the extra axle.

The extra axle is free to turn in heavy bronze bearings but is restrained by a heavy A-shaped bracket which is coupled through a swivel joint to the cross tube mentioned previously. The effect of this arrangement is to relieve the extra rear springs of the brake stresses or of the towing load of the extra axle. Rear brackets of the extra Trucktor springs provide for lateral movement of the springs in the bracket, this slight amount of shifting of the axle position assisting the extra wheels in tracking the front.

Trucktor units are made in three sizes and in models to match standard trucks from 1½ ton capacity upward.

• REO •

REO MOTOR CAR CO. announces the availability to 1934 Speed Wagon buyers of its two-ratio rear axle units which, the factory claims, afford all the advantages of eight forward speeds. The extra forward gears make it possible to use efficiently and economically all the engine power needed for any load, road, grade or speed. The two-speed units, of Reo design and manufacture, are available at slight extra cost.

THE COMMERCIAL CAR JOURNAL



Foot and back rests in position for relaxation



Sleeper section in position for a restful sleep

Autocar Has New Type of Cab With Adjustable Sleeper Seat

THE accompanying illustrations show the new Autocar Co. deluxe sleeper cab. The sleeping berth is made in two sections, one of which is changed from a sitting to a reclining position very much the same as a berth is provided in a Pullman sleeper. The other section, which makes the foot and leg rest, is folded back under the cowl when not in use. The advantage of this form of construction is that it provides for the spare driver a comfortable couch of full length in a place where there is good ventilation and in a position which is parallel to the motion of the truck rather than being at right angles to it.

The back of the sleeper seat can be



Exterior of Autocar sleeper cab

adjusted to any position desired. This means that a man riding on that seat can stretch back in a comfortable posi-

tion for relaxation at a time when he does not feel the necessity of fully reclining for sleep. All of this has been accomplished inside a design which is compact and attractive without any awkward features.

The Autocar sleeper cab is 77¼ in. from the front to the back and 62 in. wide, outside measurements. It is only 22 in. longer than the standard Autocar deluxe cab. The sleeper berth has an overall length of 72 in. when fully extended. The seat section is 23 in. wide by 46 in. long and the foot and leg rest, which folds under the cowl, is 16½ in. wide by 27 in. long. The Autocar Co. has applied for patents covering all features of this design.

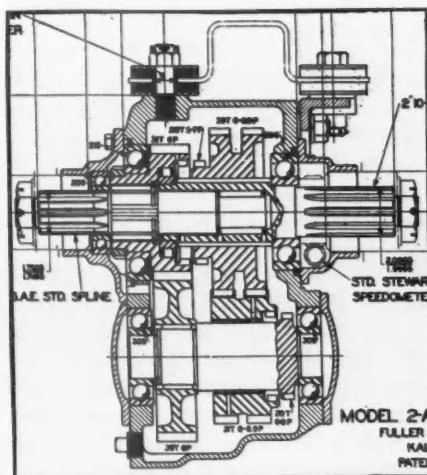
Fuller's New Two-Speed Auxiliary Is for Use With 5A Unit

THE Fuller Mfg. Co. announces a new two-speed auxiliary transmission, Model 2A53, designed primarily for use with its 5A series five-speed unit transmissions. For that reason, it was desirable to make this unit as compact as possible to permit installation in short wheelbase tractor trucks.

This compact construction was secured by telescoping the mainshafts which eliminates the conventional nose piece. A further saving in length is obtained by the use of herringbone gears sliding on both the mainshaft and countershaft which takes much less shifting space than is ordinarily required. The splined gear on the mainshaft, which is controlled by the shifting fork, carries the bushed countershaft gear with it. A short forward movement engages the main drive gear for direct drive; and an equally short movement to the rear engages a clutch

integral with the countershaft for the reduction drive.

A three-point suspension mounting



Sketch of Fuller's new auxiliary

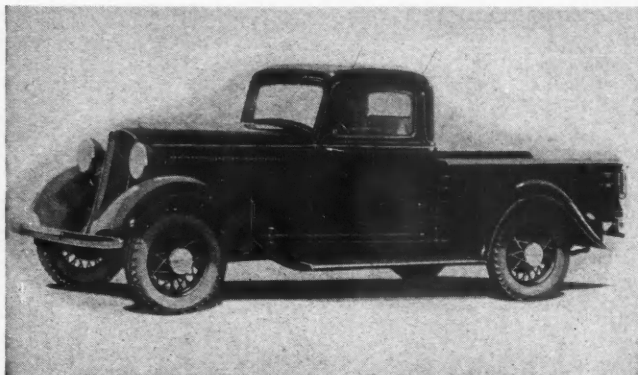
is used with one stud at the front of the case, and two in the bracket at the rear. Rubber mounting pads are furnished with the transmission.

A special rear support can also be furnished for mounting the American Cable 16 in., single or double shoe brake at the rear of the auxiliary. Details of this will be furnished on request.

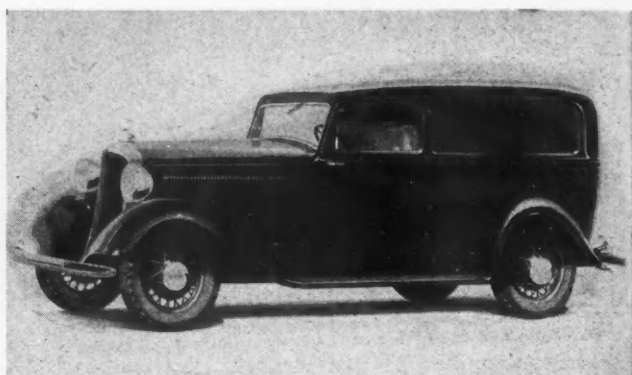
Since there is only one shift rod, a simple lever pivoted on a stud is all that is required for shifting. Where there is insufficient room in the cab for mounting this lever to the left of the unit transmission, a cross-over lever can be supplied on the auxiliary, and the shift lever mounted on an extension of the hand brake lever shaft.

The gear ratios available are 1.00:1 and 1.58:1, standard, and 1.00:1 and 2.08:1, optional.

The unit weighs 158 lb. and has an oil capacity of 4 qt.



Above is the Dodge KC commercial express, listing at \$485. Above right is the KCL commercial panel delivery with a \$595 list



TWO new body types in the commercial-car series, a new, heavier-duty additional 1½-ton truck line, three new models in the 2-3-ton line and a number of refinements generally are announced by Dodge Brothers Corp. for its 1934 truck line.

A feature of the 1934 truck program is that truck production has now been entirely segregated from passenger-car operations, following a complete reorganization of the truck plant involving considerable retooling.

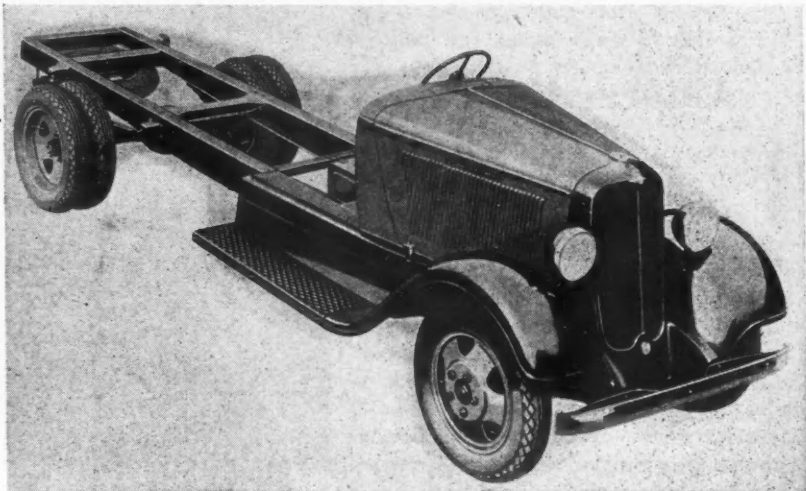
The Dodge commercial-car series, which was introduced in the spring of 1933, with sedan, panel and express bodies admittedly striking a new note in attractive appearance, is not only retained with further improvements, but enlarged through the addition of canopy and screen types.

The major changes in the commercial line are in the front axle and motor. The former is now of the drop forged I-beam type instead of tubular, as formerly. Engine specifications now show that both the 111-in. and 119-in. commercial chassis are equipped with 3½ by 4⅜-in. engines, as used in the larger model last year.

Compression ratio has been increased to 5.8 to 1, raising horsepower output to 75 at 3600, and maximum torque to 136 lb. ft. Gear ratio has been reduced to 4.1 to 1 to permit higher operating speeds with the increased power.

The semi-floating rear axle is larger and stronger, with axle shafts of chrome-nickel steel. The drive ratio is increased to 4.11:1 and provides the fast speed required in up-to-date delivery service.

The brakes are hydraulic, self-equalizing, with composite steel and cast-iron brake drums such as were first used on Dodge passenger cars in 1933. A sepa-



This is the Dodge K32, 1½-ton chassis with 136-in. wheelbase

Dodge for 1934 Features 1½-Ton Trucks and New

rate parking brake is mounted at the rear of the transmission. Standard tire equipment is 5.25 x 17 on wire wheels, with the option of 6.00 x 16 on wire or steel-spoke wheels. Prices, F. O. B. factory, are: Express, \$485; sedan, \$580; panel, \$595; canopy, \$595; screen, \$615.

The commercial models now carry the designation of KC and KCL for the two wheelbases.

The 1½ to 2-ton line for 1934 is composed of five models. Two of these, the K30 and K31, are similar to the H30 and H31 models for 1933, except that they have materially increased output and larger engines. Bore has been raised ⅛ in. The increase in piston displacement to 217.8 gives a new horsepower rating of 78 at 3600, with

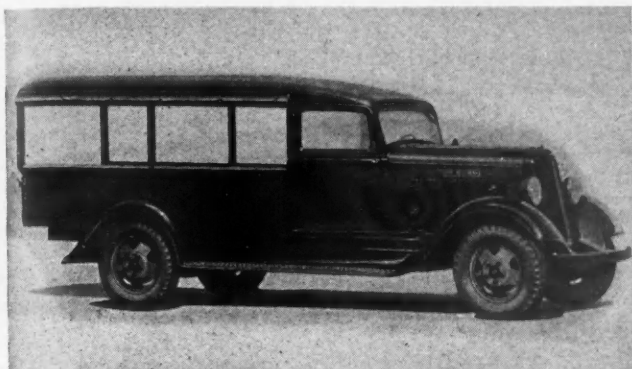
a torque peak of 150 ft. lbs. Nickel, chrome and molybdenum are used in the iron alloy cylinder block casting for long cylinder wall life.

Pistons in this engine are of the aluminum alloy type with steel struts to control expansion.

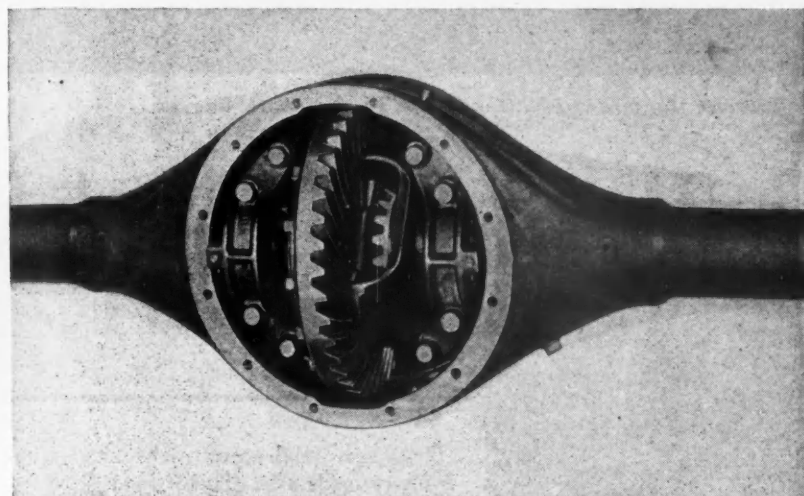
Among the other powerplant features are a crankshaft balanced by seven counterweights and revolving in four main bearings; special alloy exhaust-valve seat inserts and silchrome steel exhaust valves, and full-pressure lubrication.

The transmission provides four forward speeds and one reverse. The clutch is 10 in. in diameter, of ample size to transmit the 150 foot-lb. torque.

The frame on the K30 and K31 is of 11/64 in. steel stock, with sills 6 29/32



Above and above left are pictured the 161-in. stake job and the 131-in. wheelbase canopy job included in the new 1 1/2-ton line



Showing construction of the differential on the 1 1/2-ton line

a Heavier Duty Line of Commercial Body Types

in. deep and flanges $2 \frac{5}{16}$ in. wide. The rear axle is of the full-floating type, with eight adjustable taper roller bearings.

The other three models—K32, K33 and K34—in the 1 1/2 to 2-ton line are really intermediate between the K30 and K31 and the 2 to 3-ton series. Wheelbases, respectively are 136, 148 and 161 in. They are distinguished particularly by the use of a materially heavier axle and 25 per cent stronger frame structure for increased load carrying capacity. They carry the same larger engine as the other 1 1/2-ton models.

The full-floating axle is of a new, heavier-duty type, larger and stronger than on any previous 1 1/2-ton Dodge truck. Eight taper roller bearings are

employed, with chrome-nickel steel axle shafts measuring $1 \frac{9}{16}$ in. in diameter at the wheel ends. The standard drive ratio is 5.125:1 and there are two optional ratios, at slight extra cost, one 5.667:1, the other 6.33:1. Each of the two larger differential carrier bearing caps is held down by four large bolts, instead of the customary two.

Gross weight ratings for the K32, K33 and K34 are identical—10,500 lb.

In the 2 to 3-ton line the three new models are the K45 on a 140 in. wheelbase, the K46 with a wheelbase of 157 in., and the K47 on a 169 in. chassis. These models, each 12,500 lb. gross efficiency, range in capacity between the above 1 1/2 ton line and the F40 heavy duty 2-ton series, which is continued.

As compared with the 1 1/2-ton models, the engine is materially larger, having a bore and stroke of $3 \frac{3}{8}$ by $4 \frac{1}{2}$ in. Its horsepower output is 80 hp. at 3000 r.p.m., against a tax rating of 27.34 hp. With a compression ratio of 5.4 to one this 241.5 cu. in. engine has a torque of 170 ft. lb. at 1200 r.p.m.

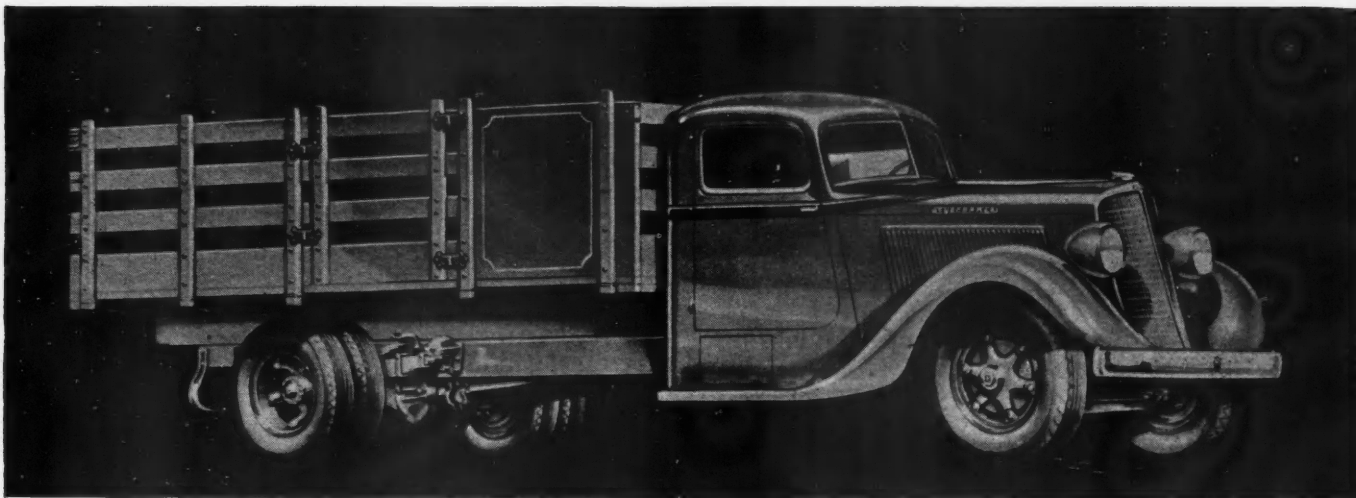
Crankshafts are larger in diameter and have almost double the bearing length of the 1 1/2-ton engines. Pistons are of the T-slot type, aluminum alloy.

These models are provided with five-speed transmissions, and have auxiliary rear springs in addition to the regular semi-elliptics. Wheels are steel spoke type, with 7.00/20 in. balloons standard on the front and dual tires of the same type standard at the rear. Frames are materially heavier than the standard 1 1/2-ton line, corresponding closely to the frames of the heavier duty 1 1/2-ton models.

Full-floating rear axles are much sturdier than in the standard 1 1/2-ton line, all dimensions having been increased, particularly for the differential housing, gears and bearings. The standard drive ratio of 5.667:1 with an optional, extra cost ratio of 6.33:1. The chrome-nickel axle shafts are 1 1/2 in. in the center, $1 \frac{3}{4}$ in. at the spline ends. The ring gear is of chrome-vanadium steel.

Prices, F.O.B. factory: 140 in. wheelbase: chassis, \$845; chassis and cab, \$955; chassis with 9 ft. stake body, \$1,050. Prices of 157 in. wheelbase: chassis, \$865; chassis and cab, \$975. Prices of 169 in. wheelbase: chassis, \$875; chassis and cab, \$985; chassis and cab and 13 ft. stake body, \$1,125.

The successful 2, 3 and 4-ton heavy-duty series of Dodge trucks is being continued with a number of minor mechanical changes.



This view of the Studebaker 1 3/4-ton model illustrates the modernized appearance of the entire line for 1934

Studebaker Adds Heavy-Duty Model and Modernizes Looks for 1934

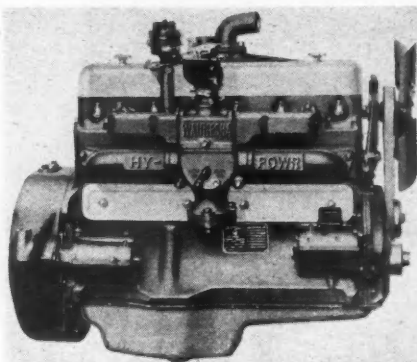
STUDEBAKER trucks are out with new beauty and more power to secure a larger share of truck registrations in 1934. All the 1934 models have been placed in the spotlight with striking streamlining, and a new 3-ton chassis has been added to the line—much more powerful than any truck Studebaker has built before.

A strong dark red has been adopted as standard truck color. Its deep richness is suitable for the daring new lines of fenders, radiators, hood, windshield and drop-skirt cab. The radiator, hidden by an ornamental guard, slopes smartly to the black embossed V which gives a distinctive appearance to the hood. Broad skirted fenders have sweeping lines in keeping with those of the radiator and the windshield. The windshield is divided and is slanted to a cab that is handsome inside and outside. The hood is brought back to eliminate the conventional side panels of the cowl.

The line of Studebaker chassis for 1934 is as follows:

Rating	V.G.W. (lb.)	Engine
1 1/2—2	8,000—9,000	75 hp.
1 3/4—2 1/2	9,000—10,500	75 hp.
2—3	10,500—12,000	75 hp.
3—4	14,000—16,000	75 hp.
3—4	14,600—16,600	110 hp.

The new 3 to 4-ton chassis is powered by a Waukesha engine which develops 110 hp. at 2800 r.p.m. Its bore of 4 in. and stroke of 4 3/4 in. gives a displacement of 358 cu. in. Torque is 254 ft. lb. at 1000 r.p.m.



This Waukesha engine is used in the new 3-4-ton truck

A positively driven, self oiling, mechanical governor is built into the engine.

The rear axle is a Timken, 58200 series, with 6.833 standard gear ratio. The malleable iron axle housing has pressed into it sleeves of nickel chromium steel.

Axle shafts, with integral flanges at the outer ends, are machined from heat-treated, nickel-chromium alloy steel forgings. Bevel gears are of special electric-furnace molybdenum-steel, case hardened outside, tough inside, with wide base and scientifically shaped tooth surface.

The pinion is supported by the Timken three-bearing mounting which makes it impossible for the pinion to lift, back away or move in or out along its axis. A bronze thrust block keeps the ring-gear in mesh even under shock loads.

"This truck," the factory states, "is designed for those operators who must

maintain high-speed schedules with heavy loads over difficult roads."

At an even lower price another 3-4 ton chassis is available, using a Studebaker engine of 75 hp. and an under-drive auxiliary transmission. Axle, frame, power brakes and many other specifications are identical in both 3-4 ton chassis.

Studebaker frames on all models are securely braced with husky cross-members which fill the entire frame channel. The flanged ends are riveted to the side rails and reinforced by gusset plates.

All rear axles are full-floating with capacity in excess of ratings. Banjo housings give easy access to the differential.

Bendix two-shoe duo-servo brakes are standard throughout the line. New shoes can be installed or adjustments made quickly and without special tools. The molded linings contact with drums of nickel alloy cast iron.

Brakes are operated by B-K vacuum power on all chassis except the 1 1/2-ton. They permit the use of hard, low-friction brake lining.

Safe and easy steering is assured by heavy-duty cam and lever gears. The cam is made of special alloy steel, case-hardened.

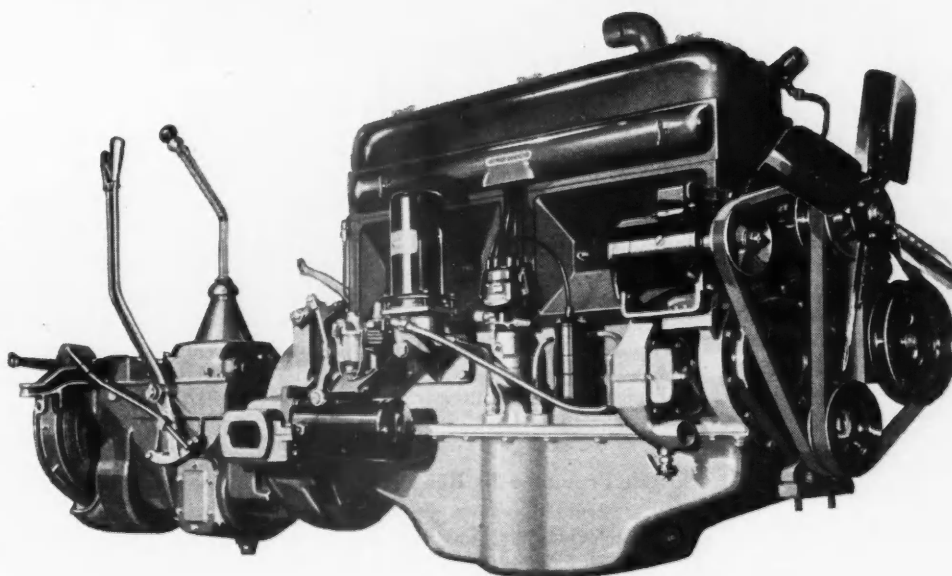
The Studebaker 75 hp. six-cylinder truck engine, which is used in all chassis except the one 3-4-ton job. Power development claimed for it is 1 h.p. for every 3.06 cu. in. of piston displacement. This engine is used in trucks exclusively.

GENERAL MOTORS TRUCK COMPANY

presents

A NEW ENGINE

GMC 450



DEVELOPING the highest sustained torque of any truck engine in its capacity range . . . and delivering maximum torque from 800 to 1200 r.p.m. . . the new GMC 450 engine fully maintains the reputation for capability which the GMC line has established. In spite of its 120 horsepower, developed at 2300 r.p.m., this new 450 is characterized by *high* operating economy.

Like its companions, the new GMC 450 power plant is of

6-cylinder valve-in-head GMC design. Its features and improvements include down-draft carburetion; crankcase ventilation; oil temperature regulator; full pressure lubrication; and airplane type, steel backed, copper lead alloy precision bearings.

The GMC 450 is designed for heavy duty service. Completely truck-engineered and truck-built, it is a worthy addition to the famous group of GMC truck engines.

CHECK THESE FEATURES OF VALUE—ECONOMY—DEPENDABILITY

- 1** The highest sustained torque in its capacity range—340 ft. lbs. at 800 to 1200 r.p.m.
- 2** 120 horsepower at 2300 r.p.m.
- 3** GMC valve-in-head design—for greater power and efficiency.
- 4** Down-draft carburetion—for maximum torque over a wide speed range.
- 5** Roller bearing centrifugal water pump—front mounted to provide large generator space.
- 6** Crankcase ventilation—to maintain oil quality.
- 7** Oil temperature regulator—to protect bearings by keeping oil temperature at normal.
- 8** Full pressure bearing lubrication.
- 9** Tulip type exhaust valves, stellite seats.
- 10** Balanced and counterweighted four-bearing crankshaft.

GENERAL MOTORS TRUCKS and Trailers

GENERAL MOTORS TRUCK COMPANY

Time Payments Available Through Our Own Y. M. A. C.

PONTIAC, MICHIGAN

COMMERCIAL CAR JOURNAL NEWS

January Output Up 78%

The January output of American motor vehicle manufacturers was placed at 155,000 cars and trucks in a preliminary report released by the National Automobile Chamber of Commerce. This represented a 78 per cent increase over the previous month and 16 per cent increase over January, 1933. It also exceeded January, 1932, by 26 per cent.

Ford Output Jumps

Ford production in the United States during January totaled 57,575 units, the factory announces. The total was the largest January production since 1930 and the greatest volume in any month since June, 1932. Ford V-8's represented 54,038 of the total.

New Ford Parts Discounts

Parts discounts granted by Ford dealers to established independent and fleet repair shops have been increased from 25 to 30 per cent. Any repair shop recognized as eligible by the local dealer code authority, may obtain the discount, it is understood. The Ford Motor Co. is also understood to have increased discounts granted its dealers on parts. The base discount is now reported to be 42 per cent with "key" dealers getting 49 per cent. The new discounts are said not to apply to accessories, exchange deals and to some body parts.

Livestock Hauling Increases

Motor trucks transported exactly 50 per cent of the cattle, calves, hogs and sheep from farms to 17 markets in 1933, a gain of 30 per cent in number over the previous year. More than 30,000,000 head of cattle, calves, hogs and sheep were hauled to market terminals by truck, according to the Corn Belt farm dailies.

Bill Motors Moves

Bill Motors Co. has moved from its former location at 1100 57th Ave., Oakland, Cal., to 9601 San Leandro Boulevard, Oakland.

Dodge Shipped 33,262 in 1933

With a backlog of 5000 orders received by the factory between Jan. 1 and Jan. 20, Dodge dealers, in the same three working weeks, made retail deliveries of 1515 trucks. Domestic shipments of Dodge trucks during 1933 amounted to 33,262 units.

Reo Management Changes

Richard H. Scott, who for the past several years has been both president and general manager of Reo Motor Car Co., has retired as general manager.

R. E. Olds, who has been chairman of the board, becomes chairman as well of the executive committee, in whose hands the active direction of the corporation rests.

Ray DeVlieg has been made works manager.

FEBRUARY, 1934

Kellogg Handles Oildraulics

The Kellogg Equipment Corp., Rochester, N. Y., announces that arrangements have been completed with the Oildraulic Lift Co., Memphis, Tenn., to handle exclusive sales of Oildraulic lifts and elevators.

Federal Gets QM Order

An order for a fleet of 11 2-ton trucks for telephone construction work has been awarded by the Quartermaster Corps, U. S. Army, to the Federal Motor Truck Co.

5835 Highway Projects

Progress made on emergency construction of public works highways to Feb. 3 under the supervision of the U. S. Bureau of Public Roads shows a total of 5835 projects, estimated to cost \$301,188,000, had been advertised for contract or begun by day labor employed directly by the highway authorities.

Struble Promoted by Reo

A. L. Struble has been made sales manager of the truck division of the Reo Motor Car Co., succeeding Carl Parker, resigned.

Mr. Struble has been well known in the truck business since 1918, having been connected with Republic, Transport and Federal. He has been associated with Reo three years.

245,869 Trucks Sold

Total new motor truck sales in 1933 amounted to 245,869 units, a gain of 36.22 per cent over the 180,413 new motor trucks sold in 1932, according to figures based upon official registrations reported in the 48 states and the District of Columbia, as compiled by R. L. Polk & Co.

Fitness Reo Engineer

Ray J. Fitness has been made chief engineer of the Reo Motor Car Co. He comes to Reo from Chrysler, where for the last three years he was experimental engineer. Formerly he was with Continental Motors, Studebaker and Dodge Brothers.

R. J. Pearce

R. J. Pearce, 42, general assistant service and parts manager for Chevrolet Motor Co., was killed in an automobile accident during a blinding snowstorm near Jackson, Mich.

Baumgartner Joins G.M.C.

Walter J. Baumgartner has joined the engineering staff of General Motors Truck Co. Formerly he was chief engineer of Garford-Relay.

Preble With Tidewater

T. L. Preble has been placed in charge of the fleet of the Tidewater Oil Co. His headquarters are in New York. Mr. Preble is well known in the truck trade, having been connected with White, Brockway, Studebaker, Pierce-Arrow and General Motors Truck.

Keller and McIlroy Named

Resignation of C. W. McDaniel, director of sales and advertising for Aluminum Industries, Inc., manufacturer of Permit Products, and a reorganization of the Sales and Advertising Departments, has been announced by H. J. Hater, treasurer and general manager. Bruce V. Keller, district manager, has been made advertising manager and W. E. McIlroy, in charge of field sales, becomes sales manager.

Glantz Assists Tucker

Norman A. Glantz, formerly in charge of advertising and sales promotion in the Chicago district of the B. F. Goodrich Co., has been transferred to Akron as assistant to F. T. Tucker, manager of tire advertising.

Siegfried Gets Recognition

L. L. Siegfried has been appointed executive vice-president of Defiance Spark Plugs, Inc.

Kellogg Appoints Two

The Kellogg Mfg. Co. announces that H. O. Holland will represent Kellogg in New England, being located at Boston. L. D. Smith, for many years with Manley, will represent it in Pennsylvania, Maryland and District of Columbia territory.

Black to Head Display

Fred L. Black, former advertising manager of Ford Motor Co., will be in charge of the Ford display at Chicago when the Century of Progress Exposition reopens, it is reported.

Letsinger Heads Cummins Sales

Paris E. Letsinger has been appointed vice-president in charge of sales for the Cummins Engine Co. He was connected with The White Co. for 12 years, the last eight as San Francisco district manager.

Fruehauf Appointments

Two new distributors added by the Fruehauf Trailer Co. are the Whitton Machine & Equipment Co., Augusta, Ga., and Northwestern Auto Supply Co., Billings, Mont. Roy A. Fruehauf has been appointed regional manager.

THE COMMERCIAL CAR JOURNAL

COMMERCIAL CAR JOURNAL'S

TRUCK SPECIFICATIONS TABLE

The Commercial Car Journal's Truck Specifications Table is brought up to date in each issue from data supplied monthly by truck manufacturers

KEY TO ABBREVIATIONS AND REFERENCE MARKS

GENERAL

Chassis Price—Chassis price quoted applies to the standard wheelbase and specifications listed. All prices are F.O.B. factory.
***—List price not yet established. Ready next issue.

Tonnage Rating—Where a spread of ratings is given the maximum ratings are for ideal operating conditions and the minimum for extremely difficult conditions; the ranges between are for varying operating conditions.

Gross Vehicle Weight—Is chassis weight, plus body and cab, plus payload. Gross vehicle weight given for a model is based on maximum recommended tire size and not on tires listed as standard equipment.

Chassis Weight Stripped—Includes gas, oil and water and all things included in chassis price. Does not include the weight of cab.

Maximum Brake H. P. at Given R.P.M.—Is actual dynamometer reading without accessories.

Tractors—Unless given the designation N (meaning not available as tractor), all standard models may be assumed to be available as tractor.

(A) All Torque and Brake Horsepower values listed are based on engine outputs with all Standard Equipment Accessories running and are the same values obtaining with the truck on the road in actual operation.

(N) Not available as tractor.

(T) This designation accompanying a model number indicates vehicle is specifically designed for tractor use only.

(3) Corbitt—Larger engines and corresponding auxiliary units provided on all models at extra cost.

(4) Day Elder—Model 75—1½ ton—same specifications except price—\$945, and larger tire size—B6.00/20 front and DB6.00/20 rear.

(5) Dodge—F-61 available as special tractor truck with 146-inch wheelbase with model designation of F-60, at \$2645. K-61 available as special tractor truck with 146-inch wheelbase with model designation of K-60, at ***.

(5a) Dodge—Model H20, ¼-1 ton, gross vehicle weight 6,000 lb., price \$502, has same specifications as H30 except tires which are 7.50/17 and, lighter rear springs.

(6) General Motors—Models T-18 to T-41 inclusive are also available for export only as coach chassis. Double reduction axles optional in Models T-43, T-43T, T-51, T-51, T-53 and T-95 at extra cost. Trailing type axles available on Model T-95 at price deduction. Optional size engines available on Models T-85, T-85H, T-95, T-110, and T-130 at varying cost.

Gramm—Larger engines and corresponding auxiliary units provided on all models at extra cost when type of service demands. Wheelbases and body mounting dimensions may change to suit special requirements. Double reduction axles available on all models except AX and BX.

Gross weight indicated for each model in the table is the straight rating. Series CXH is supplied with Hercules JXB engine in Model CXHB and Hercules JXC in Model CXHC.

(7) Grass Premier—Eight cylinder engines available on following models: 835 with Lye. GU at \$1515 list; 865 with Lye. HF at \$2430; 875 with Lye. AE at \$5400.

(8) International Harvester—A-1, ¾ ton, same as A-2 except less spring leaves and smaller tires.

(9) Le Moon—Model 600 available with Lye. AEC at same cost. Models 701 and 801 available with Waukesha 6SR at same cost.

(10) Sterling—Rocker arm used in place of springs.

(*) Sterling—These models also available equipped with Cummins Model H Diesel engine.

†Reo—Models 1C and 1D are the longer wheelbase editions of Models 1A and 1B. The frame dimension of both is 7x2¼x4. They are furnished at extra cost.

††Reo—2J, 2K same as 2H except 166 in wheelbase and price of \$1695

††Reo—3J same as 3H except wheelbase of 170 in. and price of \$2085; 3K same as 3H except 185 in. wheelbase and price of \$2155. 3M same as 3H except 205 in. wheelbase.

(11) Studebaker—S-2 in 141 in. and 165 in. wheelbases has 6¼ in. frame depth.

(12) White—Each model shown is furnished with different specifications for different tonnage ratings.

*—Factory governed speed 2400 r.p.m.

(13) Marmon-Herrington—Available with Hercules Diesel engine. Price on application.

(14) Ford—Rear axle ratios 5.14 and 6.6 optional on 1½-ton trucks.

MAKES—ALL

AB—American Bosch.
A LaF—American La France.
AL—Auto Lite.

B—Bendix.
BB—Borg & Beck.
BL—Brown-Lipe.
BO—Covert front, Own rear.

Blo—Blood.
Bu or Bud—Buda.
BW—Borg Warner.
BWs—Bendix front, Westinghouse rear.

C or Col—Columbia.
Car—Carter.
Ch—Chicago.

CI—Ignition by compression.
Cl or Cla—Clark.
Cle—Cleveland.

Co—Covert (transmission).
Co—Covert (clutch).
Con—Continental.

Cot—Cotta Gear.
Cum—Cummins-Diesel.

Det—Detroit Lubricator.
DG—Detroit Gear and Machine.
DR—Delco Remy.

Eat—Eaton.
Ei—Eisemann.
En—Governor built in engine.

EV—Electro-Vac (gov.) Pierce.
Fe—Fedders.
Fu—Fuller.

Ge—Gemmer.
GO—G. & O.

Ha—Handy (governor).
Ha—Hannum (steering gear).
HaS—American Car & Fdry.

Her—Hercules.
Hr—Harrison.
HS—Merchant & Evans (clutch).

HS—American Car & Fdry. (governor).
Jac—Saginaw.
Jo—Jones.

KP—Handy.
L—Lockheed.
Li—Lipe, W. C.

LN—Leece Neville.
Lo—Long.
LO—Lockheed front, Own rear.

LW—Lockheed front, Wisconsin rear.
Lyc—Lycoming.

Mc—McCord.
Ma—Marvel.
ME—Merchant & Evans.

MM—Mechanics Mach.
Mo—Modine (radiator).
Mo—Monarch (governor).

My—Mallory.
NE—North East.
No—Not supplied.

ns—No Standard.
O or Ow—Own.
Op or Opt—Optional.

Pe—Pierce (governor).
Pe—Perfex (radiator).
PS—Peters & Sneed.

RB—Robt. Bosch.
Ro—Rockford.
Ros—Ross.

Sc—Scintilla.
Sch—Wheeler-Schebler.
Shu—Shuler.

SpB—Spicer and Blood.
Spi—Spicer.
St or St—Sterling.

Str—Stromberg.
Til—Tillotson.
T or Tim—Timken.

TWH—Timken Wisconsin Herrington.
WQ—Warner Gear.
Wa—Waukesha (governor).

Wau—Waukesha.
W or Wis—Wisconsin.
Ws—Westinghouse.

Yo—Young.
Zen—Zenith.

BRAKES—SERVICE

Location

2—Two wheels, rear only.
2/4—Two-wheel brakes effective on all four wheels through driveshaft.
4/6—Brakes on four rear wheels effective on all wheels through driveshaft.
T/4—Brake on transmission effective on all four wheels through driveshaft.
4—Four wheels, front and rear.
4r—Four wheels, rear only.
6—Six wheels, front and rear.
J—Jac' shaft.
P—Propeller shaft.

Type

I—Internal.
X—External.

Operation

A—Air.
D—Hydraulic and mechanical.
H—Hydraulic.
M—Mechanical.
V—Vacuum.

BRAKES—HAND

Location

C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
R—Worm or bevel gearshaft.
T—Transmission.
F—Driveshaft.

Type

D—Tru-Stop disk.
I—Internal.
X—External.

BRAKE DRUMS

Material

a—Cast alloy iron.
A—American Car Fdry.
C—Centrifuge.
D—Dayton.
E—Ermalite.
G—Gunite.
H—Hunt Spiller.
c—Cast iron.
p—Pressed steel.
P—Pressed steel.
s—Cast steel.
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

CLUTCH

Type

D—Multiple disk.
dp—Double plate.
O—Plate in oil.
P—Single plate.

ENGINE

Valve Arrangement

F—Inlet valve in head; exhaust valve at side.
H—In head.
L—"L" head, valves at side.
T—Inlet and exhaust on opposite sides.

Camshaft Drive

C—Chain.
G—Gear.

Piston Material

A—Aluminum alloy.
B—Semi-steel.
C—Cast iron.
N—Nickel iron.
S—Aluminum alloy with strut.

Main Bearings

r—Rear main bearing.

Oiling System

CC—Pressure to main, connecting rod and camshaft bearings.

FP—Pressure to main, connecting rod camshaft bearings and piston pins.
PC—Pressure to mains and connecting rod bearings.
PG—Pump, gravity and splash.
PS—Pressure with splash.

FRAME

Type

L—"I" Beam.
C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
B—Channel reinforced with both liner and fishplate.
P—Channel reinforced with plate.
TL—Channel tapered front and rear reinforced with liner.
D—Drop Center.
Tf—Tapered front.
X—x-Braced.

FUEL SYSTEM

Fuel Feed

E—Electric pump.
G—Gravity.
M—Mechanical pump.
P—Pressure.
V—Vacuum.

REAR AXLE

Final Drive and Type

B—Bevel.
C—Chain.
D—Dead.
F—Full-floating.
2—Double Reduction.
S—Spiral bevel.
W—Worm.
w/2—Worm or Double Reduction Optional.
½—Semi-floating.
¾—Three-quarter floating.

Drive and Torque

A—Radius Rods and Torque Arm.
H—Hotchkiss. (springs)
R—Radius Rods.
T—Torque Arm.
U—Torque Tube.

SPRINGS

Auxiliary Type

½—Semi-elliptic above or below main springs.
¼—Quarter elliptic.
C—Coil spring.
N—No.
O—Optional.

TIRES

B—Balloons.
DB—Dual Balloons.
P—High Pressure Pneumatics.
DP—Dual High Pressure Pneumatics.
S—Solids.
DS—Dual Solids.
2—Pneumatics at extra cost.

TRANSMISSION

Location

A—Amidships.
J—Unit with jackshaft.
U—Unit with engine.

Auxiliary Location

No—Not furnished.
O2—2 speed axle unit optional at extra cost.
Op—Optional at extra cost.
A—Amidships.
R—Rear of amidships main transmission.
U—Unit with engine.

WHEELS DRIVEN

2C—Center pair of rear wheels.
2R—Rear pair of rear wheels.
4F—Front and center pair of rear wheels.
4R—Four rear wheels.
6—Six wheels.

Line Number	MAKE AND MODEL	GENERAL (See Keynote)				TIRE SIZE		MAJOR UNITS										FRAME	
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE		TRANSMISSION		REAR AXLE				Side Rail Dimensions	Type
										Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Location and Speeds	Make and Model	Gear and Type	Drive and Torque	In High			In Low
1	A.C.F.	160	6950	186	222	26000	10170	B9.75/22	B9.75/22	Has 160	6-4x5 1/2	BL 1714	U4 Op	Tim 76730	2F	R 7.46	52.7	8x3x4	P
2	175B	6 1/2	8300	186	222	26000	10750	B10.50/22	B10.50/22	Has 175	6-5x6	BL 1714	U4 Op	Tim 76730	2F	R 7.46	52.7	8x3x4	P
3	175A	7 1/2	8800	186	240	30000	11610	B10.50/24	B10.50/24	Has 175	6-5x6	BL 1714	U4 Op	Tim 76730	2F	R 7.46	52.7	8x3x4	P
4	Armlider	11H	1295	156	195	11500	4850	B6.50/20	DB6.50/20	Con 16C	6-3x4 1/4	BL 35	U4 No	Tim	BF	H 5.83	31.2	6x3x4	P
5	21H	2 1/2	2185	160	207	15300	5450	B8.25/20	DB8.25/20	Her WXC	6-4x4 1/4	Own	U5 No	Tim	BF	H 6.06	38.5	6x3x4	P
6	31H	3 1/2	2695	146	213	19500	5750	B9.00/20	DB9.00/20	Her WXC	6-4x4 1/4	Fu 5A38	U5 No	Tim	BF	H 6.02	39.2	7x3x4	P
7	41H	4 1/2	3050	146	227	23000	6600	B9.75/20	DB9.75/20	Her WXC	6-4x4 1/4	Fu 5A38	U5 No	Tim	BF	H 6.83	43.8	7x3x4	P
8	61H	5 1/2	3725	146	227	24000	7400	B9.75/20	DB9.75/20	Her WXC2	6-4x4 1/4	Fu 5A38	U5 No	Own	2F	R 7.07	49.8	8 1/2 x 3 1/2	P
9	71H	6-11	5895	152	247	35000	9820	B10.50/24	DB10.50/24	Her RXC	6-4x5 1/4	Fu 5A53	U5 No	Wis	2F	R 7.07	49.8	8 1/2 x 3 1/2	P
10	(T) TRD	10	4150	148	174	35000	7100	B9.00/20	DB9.00/20	Her YXC	6-4x4 1/4	Fu 5A53	U5 No	Own	2F	R 7.8	56.8	7x3x4	P
11	(T) TRDA	12	4350	148	174	39000	7226	B9.75/20	DB9.75/20	Her YXC3	6-4x4 1/4	Fu 5A53	U5 No	Own	2F	R 7.8	56.8	7x3x4	P
12	(T) TRDB	15	4595	148	174	45000	7326	B9.75/20	DB9.75/20	Her RXC	6-4x4 1/4	Fu 5A53	U5 No	Wis	2F	R 7.8	56.8	7x3x4	P
13	Autocar	RG	3000	150	192		6100	P34x7	DP34x7	Own R	6-3x4 1/4	Own T	U4 No	Own D	2F	R 6.21	39.3	8x3x4	T
14	DF	3 1/2	3500	150	192		6140	P34x7	DP34x7	Own SD	6-4x4 1/4	Own T	U4 No	Own D	2F	R 6.21	39.3	8x3x4	T
15	DH	4	4150	150	174		7400	P36x8	DP36x8	Own SD	6-4x4 1/4	Own T	U4 No	Own TE	2F	R 6.43	40.7	9x3x4	T
16	NF	5	4650	191	227		8275	B9.75/20	DB9.75/20	Own SCH	6-4x4 1/4	Own D	U5 No	Own N	2F	H 6.43	40.7	9x3x4	T
17	UN	4	4750	151	227		8370	B9.75/22	DB9.75/22	Own SCH	6-4x4 1/4	Own D	U5 No	Own TE	2F	H 6.43	40.7	9x3x4	T
18	S	5	5500	168	168		9675	B9.75/22	DB9.75/22	Own SCH	6-4x4 1/4	Own T	U4 A 3	Own CG	2F	H 8.52	50.4	10x3x4	T
19	CE	7 1/2	6000	172	203		11784	B10.50/24	DB10.50/24	Own SCM	6-4x4 1/4	BL 734	U4 A 3	Wis 78720	2F	R 9.12	121	10 1/2 x 3 1/2	T
20	CE	7 1/2	6000	172	203		10300	S36x7	DP40x8	Own SCM	6-4x4 1/4	Own T	U4 No	Own C	2F	R 8.57	52.6	9x3x4	T
21	CE	7 1/2	6200	192	242		9800	B10.50/22	DB10.50/22	Own SCM	6-4x4 1/4	Own B	U5 No	Own CG	2F	R 8.43	46.7	8x3x4	T
22	TE	8 1/2	5900	192	242		9680	B10.50/22	DB10.50/22	Own SCM	6-4x4 1/4	Own D	U5 No	Own TG	2F	H 7.20	88.5	9x3x4	T
23	(Eng. und. seat)	UD3	3500	97	145		6740	P34x7	DP34x7	Own SD	6-4x4 1/4	Own T	U4 No	Own H & D	2F	H 6.21	39.3	8x3x4	T
24	UDF	3 1/2	3950	97	145		6740	P34x7	DP34x7	Own SD	6-4x4 1/4	Own T	U4 No	Own TE	2F	H 6.21	39.3	8x3x4	T
25	UNF	5	4850	128	163		8635	B9.75/20	DB9.75/20	Own SCH	6-4x4 1/4	Own D	U5 No	Own C & N	2F	H 6.43	40.7	9x3x4	T
26	UNF	5	5300	109	109		9115	B9.75/22	DB9.75/22	Own SCH	6-4x4 1/4	Own T	U4 No	Own TE	2F	H 6.43	40.7	9x3x4	T
27	UT	6	5900	128	163		9660	B10.50/22	DB10.50/22	Own SCM	6-4x4 1/4	Own D	U5 No	Own CG & TG	2F	H 7.20	45.6	9x3x4	T
28	UTE	8 1/2	6300	145	163		10525	B9.75/22	DB9.75/22	Own SCM	6-4x4 1/4	Own T	U4 A 3	Own CG & TG	2F	H 7.20	45.6	9x3x4	T
29	W-120	1 1/2	1245	Op	Op	11200	4000	B6.50/20	DB6.50/20	Wau BL	6-3x4 1/4	WG T9	U4 No	Tim 53200	SF	H 6.6	42.2	10x2 1/2 x 4	TX
30	W-170	2 1/2	1620	Op	Op	13400	4700	B7.50/20	DB7.50/20	Wau BL	6-3x4 1/4	WG T9	U4 No	Tim 54300	SF	H 6.8	43.5	10x2 1/2 x 4	TX
31	W-210	3 1/2	2120	Op	Op	18000	4800	B7.50/20	DB7.50/20	Wau BK	6-3x4 1/4	BL 234	U4 No	Tim 54300	SF	H 6.8	43.5	10x2 1/2 x 4	TX
32	W-240	4 1/2	1975	Op	Op	16300	5400	B8.25/20	DB8.25/20	Wau BK	6-3x4 1/4	BL 234	U4 No	Tim 56200	SF	H 7.4	47.4	12x2 1/2 x 4	TX
33	W-300	5 1/2	2750	Op	Op	20700	7000	B9.00/20	DB9.00/20	Wau 6-110	6-4x4 1/4	Fu 5A-380	U5 No	Tim 58205	SF	R 7.8	54.6	12x2 1/2 x 4	TX
34	W-400	6 1/2	3750	Op	Op	25500	8200	B9.75/20	DB9.75/20	Wau 6-125	6-4x5 1/2	Fu 5A-530	U5 No	Tim 65720H	WF	R 8.5	55.6	14x3x4	TX
35	Biederman	10	895	130	160	6000	2800	B6.50/18	B6.50/18	Con 25A	6-3x4 1/4	BL 124	U4 No	Clas B373	BF	R 5.10	31.4	7x3x4	T
36	20	1-1 1/2	1195	145	175	8000	3200	B6.00/20	DB6.00/20	Con 25A	6-3x4 1/4	BL 124	U4 No	Clas B373	BF	R 6.37	39.4	7x3x4	T
37	25	1 1/2	1250	160	175	10000	3450	B6.50/20	DB6.50/20	Con 25A	6-3x4 1/4	BL 124	U4 No	Clas B373	BF	R 6.37	39.4	7x3x4	T
38	30	2 1/2	1495	163	178	12000	4100	B7.50/20	DB7.50/20	Con 25A	6-3x4 1/4	BL 124	U4 No	Clas B611	BF	R 6.37	39.4	7x3x4	T
39	35	2 1/2	1850	146	188	12000	4680	B7.50/20	DB7.50/20	Her JXC	6-3x4 1/4	BL 234	U4 Op	Clas B611	BF	R 6.37	40.8	7x3x4	T
40	40	2 1/2	2100	158	188	16000	4840	B8.25/20	DB8.25/20	Her JXC	6-3x4 1/4	BL 234	U4 Op	Clas B611	BF	R 6.37	40.8	7x3x4	T
41	50	2 1/2	2400	176	188	20000	5600	B9.00/20	DB9.00/20	Her JXC	6-3x4 1/4	BL 234	U4 Op	Clas B805	BF	R 6.42	41.2	8x3x4	T
42	55	3 1/2	2750	180	200	20000	6450	B9.00/20	DB9.00/20	Con E602	6-4x4 1/4	BL 524	U4 Op	Clas B805	BF	R 6.42	41.2	8x3x4	T
43	60	3 1/2	3150	170	200	24000	6820	B9.75/20	DB9.75/20	Con E602	6-4x4 1/4	BL 524	U4 Op	Clas B805	BF	R 7.17	52.1	8x3x4	T
44	70	3 1/2	3600	150	210	24000	7580	B9.75/20	DB9.75/20	Con E602	6-4x4 1/4	BL 524	U4 Op	Clas Wis 1237	2F	R 6.00	58.7	8x3x4	T
45	80	3 1/2	3900	150	210	28000	7800	B10.50/20	DB10.50/20	Con E603	6-4x4 1/4	BL 524	U4 Op	Clas Wis 1237	2F	R 6.94	65.1	8x3x4	T
46	90	2 1/2	1185	149	168	10500	4035	B6.50/20	DB6.50/20	Con 26B	6-3x4 1/4	Wu T9	U4 No	Tim 53200H	SF	H 5.66	36.2	7 1/2 x 2 1/2 x 4	T
47	100	2 1/2	1485	149	168	12500	4480	B7.00/20	DB7.00/20	Con 28B	6-3x4 1/4	Wu T9	U4 No	Tim 54300H	SF	H 5.83	37.4	7 1/2 x 2 1/2 x 4	T
48	110	2 1/2	1800	168	200	15000	4985	B7.50/20	DB7.50/20	Con 30B	6-3x4 1/4	BL 314	U4 No	Tim 54300H	SF	H 5.83	37.4	7 1/2 x 2 1/2 x 4	T
49	120	2 1/2	2090	156	188	15000	5640	B7.50/20	DB7.50/20	Con 30B	6-4x4 1/4	BL 314	U4 No	Tim 54300H	SF	H 5.83	37.4	7 1/2 x 2 1/2 x 4	T
50	130	2 1/2	2690	156	200	17500	6385	B8.25/20	DB8.25/20	Con 30B	6-4x4 1/4	BL 314	U4 Op	Wis 4916L	2F	R 6.66	43.5	7 1/2 x 3x4	T
51	140	2 1/2	2540	188	200	18500	6000	B8.25/20	DB8.25/20	Con 32B	6-4x4 1/4	Fu 5A38	U5 Op	Tim 562 P/H	SF	R 5.71	35.0	7 1/2 x 3 x	

Line Number	ENGINE DETAILS										FUEL SYST.		ELEC-TRICAL		FRONT AXLE		BRAKES		BODY MOUNT-ING DATA		SPRINGS		Auxiliary Type									
	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	Number and Diameter	Length	Oiling System Type	Governor Make	Carburetors Make	Fuel Feed	Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	Make and Model	Steering Gear Make	SERVICE		Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear			
																						Make, Location Type, Operation								Lining Area	Drum Material	
1468	4.4	322	43.3	120-2200	H	C	A	7-2	10	CC	Ha	Zen	VDR	DR	P.B.L	Lo	Spi	Tim	27451	Ros	O41A	720	A	CD	172	102	33 1/2	42x3	56x4	1 1/2	N	
2707	4.4	500	60.0	175-2200	H	C	A	7-3	14	CC	Ha	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	27451	Ros	O41A	720	A	CD	172	102	33 1/2	42x3	56x4	1 1/2	N	
4248	5.0	150	27.3	65-2600	H	L	L	C	7-2	10	FP	No	Str	MAL	AL	D.B.B	Yo	Spi	Tim		Ros	L41H	380	G	TX	129 1/2	106	31 1/2	40x2 1/2	50x3	1 1/2	N
5339	4.7	225	38.4	73-2200	L	C	C	7-2	13	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Tim		Ros	L41HV	452	G	TX	129 1/2	106	31 1/2	40x2 1/2	62 1/2 x 2 1/2	50x3	1 1/2	N
6339	4.7	225	38.4	73-2200	L	C	C	7-2	13	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu		Ros	L41HV	578	G	TX	106	106	31 1/2	40x2 1/2	62 1/2 x 2 1/2	50x3	1 1/2	N
7339	4.7	225	38.4	73-2200	L	C	C	7-2	13	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu		Ros	L41HV	658	G	TX	106	106	31 1/2	40x2 1/2	62 1/2 x 2 1/2	50x3	1 1/2	N
8360	4.7	238	40.0	80-2200	L	C	C	7-2	13	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu		Ros	L41HV	768	H	TX	106	106	31 1/2	41x2 1/2	62 1/2 x 3	54x3	1 1/2	N
9529	4.4	355	51.2	115-2200	L	C	C	7-3	15	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu		Ros	L41HV	893	H	TD	93 1/2	93 1/2	31 1/2	41x2 1/2	62 1/2 x 3	54x3	1 1/2	N
10428	4.4	280	45.9	93-2200	L	C	C	7-3	15	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu		Ros	L41HV	893	H	TD	92 1/2	92 1/2	31 1/2	41x2 1/2	62 1/2 x 3	54x3	1 1/2	N
11478	4.4	318	51.2	103-2200	L	C	C	7-3	15	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu		Ros	L41HV	893	H	TD	93 1/2	93 1/2	31 1/2	41x2 1/2	62 1/2 x 3	54x3	1 1/2	N
12529	4.4	355	51.2	115-2200	L	C	C	7-3	15	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu		Ros	L41HV	893	H	TD	93 1/2	93 1/2	31 1/2	41x2 1/2	62 1/2 x 3	54x3	1 1/2	N
13134	5.2	213	33.7	75-2400	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	31000	Ros	L41DV	450	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	33000	Ros	L41DV	450	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519	c	21	88 1/2	60 1/2	34 1/2	42 1/2 x 3	54x3	1 1/2	N	
13158	5.2	240	38.4	84-2500	L	C	C	7-3	12	FP	Wa	Zen	MDR	DR	P.B.L	Lo	Spi	Tim	35000	Ros	L41DV	519										

Line Number	MAKE AND MODEL	GENERAL (See Keynote)					TIRE SIZE		MAJOR UNITS.										FRAME		
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE		TRANSMISSION		REAR AXLE				Side Rail Dimensions	Type		
										Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque			GEAR RATIOS	
																				In High	In Low
1	Dodge Bros. KS32 (Concluded)	1 1/2-3	795	136	161	10500	2866	B6.00/20	P32x6	Own	6-3 1/2x4 1/2	Own	U4 Op	Own	SF	H 5.12	32.7	7x2 1/2	C		
2	Dodge Bros. H33	1 1/2-3	845	140	169	12500	3580	B6.50/20	DB6.50/20	Own	6-3 1/2x4 1/2	Own	U5 Op	Own	SF	H 5.66	40.8	8 1/2x2 1/2	C		
3	Dodge Bros. K35	1 1/2-4	***140	169	12500	3780	B7.00/20	DB7.00/20	Own	6-3 1/2x4 1/2	Own	U5 Op	Own	SF	H 5.66	40.8	8 1/2x2 1/2	C			
4	Dodge Bros. K235	1 1/2-4	795	136	165	11000	3350	B7.00/20	DB7.00/20	Own	6-3 1/2x4 1/2	Own	U5 Op	Own	SF	H 5.66	40.8	8 1/2x2 1/2	C		
5	Dodge Bros. H43	2-4	845	140	169	12500	3580	B7.00/20	DB7.00/20	Own	6-3 1/2x4 1/2	Own	U5 Op	Own	SF	H 5.66	40.8	8 1/2x2 1/2	C		
6	Dodge Bros. K45	2-4	845	140	169	12500	3780	B7.00/20	DB7.00/20	Own	6-3 1/2x4 1/2	Own	U5 Op	Own	SF	H 5.66	40.8	8 1/2x2 1/2	C		
7	Dodge Bros. K235	2-4	***140	169	12500	3780	B7.00/20	DB7.00/20	Own	6-3 1/2x4 1/2	Own	U5 Op	Own	SF	H 5.66	40.8	8 1/2x2 1/2	C			
8	Dodge Bros. F40	2-5	1995	150	190	10000	5173	B6.50/20	DB6.50/20	Own	6-3 1/2x4 1/2	Own	U4 Op	Own	SF	H 5.66	40.8	8 1/2x2 1/2	C		
9	Dodge Bros. K40	2-5	***150	190	19000	5344	P32x6	DP32x6	Own	6-3 1/2x4 1/2	Own	U4 Op	Own	SF	H 5.66	40.8	8 1/2x2 1/2	C			
10	Dodge Bros. (5) F-61	3-5 1/2	2575	170	195	20000	5789	P32x6	DP32x6	Own	6-3 1/2x4 1/2	Own	U4 Op	Own	2F	H 7.12	48.8	16x3 1/2	C		
11	Dodge Bros. (5) K-61	3-6	***170	195	22000	5789	P32x6	DP32x6	Own	6-3 1/2x4 1/2	Own	U4 Op	Own	2F	H 7.12	48.8	16x3 1/2	C			
12	Duplex	G-80	4-8	5250	146	2200	25000	7640	B9.75/20	DB9.75/20	Own	8-3 1/2x5	Own	U5 Op	Own	SF	H 7.71	62.7	10 1/2x3 1/2	C	
13	Duplex	FAC	3 1/2-4	3600	160	Op	15000	5600	B8.25/20	DB8.25/20	Bud K325	6-3 1/2x4 1/2	BL 324	U4 No	Tim 65200	WF	H 6.75	36.2	6 1/2x3 1/2	C	
14	Duplex	SAC	3 1/2-4	4250	160	Op	16500	7200	S34x5	S30x8	Bud EBU-I	4-4 1/2x5 1/2	BL 51	U5 No	Tim 65700	WF	R 8.50	45.5	7 1/2x3 1/2	C	
15	Duplex	K-5	4250	172	Op	18000	7400	B9.75/20	DB9.75/20	Bud K428	6-3 1/2x4 1/2	BL 55	A7 No	Tim 75720	WF	R 8.50	45.5	7 1/2x3 1/2	C		
16	Duplex	M-5	5200	172	Op	21000	8000	B10.50/20	DB10.50/20	Bud L525	6-4 1/2x5 1/2	BL 60	A7 No	Tim 76725	w2F	R 8.50	45.5	7 1/2x3 1/2	C		
17	Duplex	M-5	7600	168	Op	28000	10000	P34x7	DP34x7	Bud GL6	6-4 1/2x6	BL 70	A7 No	Tim 68700	WF	R 8.50	45.5	7 1/2x3 1/2	C		
18	Duplex	M-5	2340	165	205	15000	5900	B7.50/20	DB7.50/20	Con E603	6-4 1/2x4 1/2	CL 105R	U5 No	Tim 68700	WF	H 5.75	40.7	6 1/2x3 1/2	C		
19	Fageol	102	1350	148	172	11200	4000	B6.00/20	DB6.00/20	Wau ZK	6-3 1/2x4 1/2	WG T9	U4 No	Tim 53200H	BF	H 5.66	36.2	6 1/2x3 1/2	C		
20	Fageol	135HP	2-3	2250	161	195	13400	5400	B7.50/20	DB7.50/20	Wau 6-90	6-3 1/2x4 1/2	BL 234	U4 No	Tim 54200H	BF	H 6.8	43.6	6 1/2x3 1/2	C	
21	Fageol	135RA	2-3	2400	161	195	15030	5600	B7.50/20	DB7.50/20	Wau 6-90	6-3 1/2x4 1/2	BL 234	U4 No	Tim 54200H	BF	H 7.4	47.4	6 1/2x3 1/2	C	
22	Fageol	135SC	2-3	2150	161	210	14700	5100	B7.50/20	DB7.50/20	Wau 6-90	6-3 1/2x4 1/2	BL 234	U4 No	Tim 54200H	BF	H 6.8	43.6	6 1/2x3 1/2	C	
23	Fageol	135TL	2-3	2150	161	195	13400	5250	B7.50/20	DB7.50/20	Wau 6TL	6-3 1/2x4 1/2	BL 234	U4 No	Tim 54200H	BF	H 6.8	43.6	6 1/2x3 1/2	C	
24	Fageol	250HP	2 1/2-4	3000	178	196	16300	6500	B8.25/20	DB8.25/20	Wau 6-110	6-4 1/2x4 1/2	BL 524	U4 No	Tim 56200H	BF	H 7.4	53.9	8 1/2x3 1/2	C	
25	Fageol	250MS	2 1/2-4	2700	178	196	16300	6175	B8.25/20	DB8.25/20	Wau 6MS	6-3 1/2x4 1/2	BL 334	U4 No	Tim 56200H	BF	H 7.4	53.9	8 1/2x3 1/2	C	
26	Fageol	250MK	2 1/2-4	2750	178	196	16300	6200	B8.25/20	DB8.25/20	Wau 6MK	6-3 1/2x4 1/2	BL 334	U4 No	Tim 56200H	BF	H 7.4	53.9	8 1/2x3 1/2	C	
27	Fageol	250T	2 1/2-4	3150	178	196	19500	6700	B8.25/20	DB8.25/20	Wau 6-110	6-4 1/2x4 1/2	BL 524	U4 No	Tim 56200H	BF	H 7.4	53.9	8 1/2x3 1/2	C	
28	Fageol	250SC	2 1/2-4	2925	178	200	17500	6200	B8.25/20	DB8.25/20	Wau 6-110	6-4 1/2x4 1/2	BL 524	U4 No	Tim 56200H	BF	H 7.4	53.9	8 1/2x3 1/2	C	
29	Fageol	300HP	3-5	3500	178	196	20700	7200	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2x4 1/2	BL 524	U4 No	Tim 58200H	BF	H 7.8	56.8	8 1/2x3 1/2	C	
30	Fageol	300RA	3-5	3775	178	196	25300	7700	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2x4 1/2	BL 524	U4 No	Tim 65725H	WF	R 7.8	56.8	8 1/2x3 1/2	C	
31	Fageol	370HP	3-6	5000	182	200	25300	9700	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/2x5 1/2	BL 734	U4 A3	Tim 65725H	WF	R 5.7	120.4	7 1/2x3 1/2	C	
32	Fageol	370SR	3-6	4850	182	200	25300	9500	B9.75/20	DB9.75/20	Wau 6SRK	6-4 1/2x5 1/2	BL 734	U4 A3	Tim 65725H	WF	R 5.7	120.4	7 1/2x3 1/2	C	
33	Fageol	370RA	3-6	5550	182	200	31000	9950	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/2x5 1/2	BL 734	U4 A3	Tim 66720	WF	R 5.5	116.7	7 1/2x3 1/2	C	
34	Fageol	470HP	6-7	5250	182	200	31000	10100	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/2x5 1/2	BL 734	U4 A3	Tim 66720	WF	R 5.5	116.7	7 1/2x3 1/2	C	
35	Federal	DM	975	120	120	8000	3050	B6.00/20	P32x6	Con W10	4-3 1/2x4 1/2	WG T9	U4 No	Tim 6374	SF	H 5.67	38.2	6 1/2x3 1/2	C		
36	Federal	DM	975	120	120	8000	3050	B6.00/20	P32x6	Con W10	4-3 1/2x4 1/2	WG T9	U4 No	Tim 6374	SF	H 5.67	38.2	6 1/2x3 1/2	C		
37	Federal	DM	1195	137	187	12000	3900	B6.50/20	DB6.50/20	Her JXA	6-3 1/2x4 1/2	WG T9	U4 No	Tim 54200H	SF	H 6.80	43.6	6 1/2x3 1/2	C		
38	Federal	DM	1495	137	201	14000	4500	B7.00/20	DB7.00/20	Her JXC	6-3 1/2x4 1/2	CL R110	U5 No	Tim 64640	SF	H 6.38	45.2	8 1/2x3 1/2	C		
39	Federal	DM	1595	148	185	14000	5110	P32x6	P36x8	Wau V	4-4 1/2x5	Own 7754	A4 No	Tim 64603H	WF	R 7.25	35.3	6 1/2x3 1/2	C		
40	Federal	DM	1795	148	185	16000	5400	P32x6	DP32x6	Wau V	4-4 1/2x5	Own 7754	A4 No	Tim 65001H	WF	R 8.75	43.6	6 1/2x3 1/2	C		
41	Federal	DM	2095	175	237	16000	6050	B8.25/20	DB8.25/20	Wau 6MS	6-3 1/2x4 1/2	CL R108	A5 No	Tim 64640	SF	H 6.43	45.5	10 1/2x3 1/2	C		
42	Federal	DM	2490	175	237	19000	6550	B9.00/20	DB9.00/20	Wau 6MK	6-4 1/2x4 1/2	CL R908	U5 No	Tim 58200H	SF	H 6.53	55.0	10 1/2x3 1/2	C		
43	Federal	DM	2615	175	237	19000	6550	B9.00/20	DB9.00/20	Wau 6MK	6-4 1/2x4 1/2	CL R908	U5 No	Tim 58200H	SF	H 6.53	55.0	10 1/2x3 1/2	C		
44	Federal	DM	2550	165	230	19000	6645	P34x7	DP34x7	Con 18R	6-4 1/2x4 1/2	Own 7784	A4 No	Tim 58200H	WF	R 6.83	44.5	7 1/2x3 1/2	C		
45	Federal	DM	2685	165	230	19000	6645	P34x7	DP34x7	Con 18R	6-4 1/2x4 1/2	Own 7784	A4 No	Tim 58200H	WF	R 6.75	44.5	7 1/2x3 1/2	C		
46	Federal	DM	2685	165	230	19000	6100	B8.25/20	DB8.25/20	Con E601	6-3 1/2x4 1/2	Own 7784	A4 No	Tim 58000H	WF	R 7.5	50.8	6 1/2x3 1/2	C		
47	Federal	DM	2180	157	206	17000	6100	B8.25/20	DB8.25/20	Con E601	6-3 1/2x4 1/2	Own 7784	A4 No	Tim 65001H	w/2F	R 7.5	50.8	6 1/2x3 1/2	C		
48	Federal	DM	3860	165	230	22000	7420	P36x8	DP36x8	Con 20R	6-4 1/2x4 1/2	CL B 710	A5 No	Tim 65706H	w/2F	R 7.75	50.8	6 1/2x3 1/2	C		
49	Federal	DM	4710																		

Line Number	ENGINE DETAILS										FUEL SYST.	ELEC-TRICAL	FRONT AXLE	BRAKES		BODY MOUNT-ING DATA		SPRINGS		Auxiliary Type										
	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	MAIN BEARINGS		Governor Make				Carburetors Make	Fuel Feed	Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make		Universals Make	Make and Model	SERVICE		Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear
								Piston Material	Number and Diameter														Lining Area	Drum Material						
1242	5.4	170	27.3	80-3200	11	L	C	A	4-2 1/2	6 1/4	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
217	5.4	148	25.3	77-3200	11	L	C	A	4-2 1/2	5.34	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
342	5.4	170	27.3	80-3200	11	L	C	A	4-2 1/2	6 1/4	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
4309	4.7	200	31.5	96-3000	11	L	C	A	4-2 1/2	11.34	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
5217	5.1	148	25.3	77-3200	11	L	C	A	4-2 1/2	5.34	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
6242	5.4	170	27.3	80-3200	11	L	C	A	4-2 1/2	6 1/4	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
7309	4.7	200	31.5	96-3000	11	L	C	A	4-2 1/2	11.34	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
8309	4.7	200	31.5	96-3000	11	L	C	A	4-2 1/2	11.34	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
9309	4.7	200	31.5	96-3000	11	L	C	A	4-2 1/2	11.34	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
10309	4.7	200	31.5	96-3000	11	L	C	A	4-2 1/2	11.34	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
11309	4.7	200	31.5	96-3000	11	L	C	A	4-2 1/2	11.34	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
12385	5.0	200	39.2	115-3000	12	L	C	A	4-2 1/2	13	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
13330	4.5	213	33.7	61-2100	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
14312	4.5	174	28.9	57-2100	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
15428	4.5	280	45.9	102-2400	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
16525	4.5	348	48.6	111-2200	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
17572	4.5	358	48.6	105-2200	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
18382	4.6	162	25.6	50-2500	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
19222	4.9	142	27.3	62-2800	11	L	C	A	4-2 1/2	11 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
20255	5.3	182	27.3	90-3200	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
21255	5.3	182	27.3	90-3200	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
22255	5.3	182	27.3	90-3200	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
23255	5.3	182	27.3	90-3200	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
24358	5.2	254	38.4	110-2800	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
25315	4.6	230	31.5	72-2200	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
26381	4.4	240	40.8	82-2200	11	L	C	A	4-2 1/2	11 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
27358	5.2	254	38.4	110-2800	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
28358	5.2	254	38.4	110-2800	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
29358	5.2	254	38.4	110-2800	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
30358	5.2	254	38.4	110-2800	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
31462	5.2	324	46.0	125-2600	13	L	C	A	4-2 1/2	13 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
32517	4.5	200	39.2	115-3000	12	L	C	A	4-2 1/2	13	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
33462	5.2	324	46.0	125-2600	13	L	C	A	4-2 1/2	13 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
34462	5.2	324	46.0	125-2600	13	L	C	A	4-2 1/2	13 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
35200	4.7	126	24.0	50-2700	10	L	C	A	4-2 1/2	5 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
36228	4.7	149	27.3	62-2600	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
37263	5.4	164	31.5	67-2600	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
38282	5.4	176	33.7	72-2600	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
39251	4.1	162	25.6	50-2200	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
40251	4.1	162	25.6	50-2200	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
41315	5.0	200	33.8	73-2500	12	L	C	A	4-2 1/2	12 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
42381	4.8	240	40.8	85-2400	11	L	C	A	4-2 1/2	11 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
43381	4.8	240	40.8	85-2400	11	L	C	A	4-2 1/2	11 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
44339	4.2	212	33.4	80-2200	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
45339	4.2	212	33.4	80-2200	10	L	C	A	4-2 1/2	10 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
46318	4.6	202	36.0	80-2500	11	L	C	A	4-2 1/2	11 1/2	CC	MoHa	Car	M	DR	DR	P.B.B	Fe	Own	Own	Own	Own	Own	Own	Own	Own	Own	Own		
47318</																														

Line Number	MAKE AND MODEL	GENERAL (See Keynote)				TIRE SIZE		MAJOR UNITS					FRAME								
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE	TRANSMISSION	REAR AXLE		Type							
										Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds		Aux. Location and Speeds	Make and Model	Gear and Torque				
																		Drive and Torque	GEAR RATIOS	In High	In Low	Side Rail Dimensions
1	Hug (Con.)	4183	5070	158	158	18165	8500	B9.75/20	B12.75/20	Bud K428	6-4 1/2 x 4 1/2	Fu MRUAY	U4	A3	Wls 1237H	2F	H.95	119	8x3 1/2 x 4 1/2	T	
2	42K3	3	2393	146	201	16500	7300	B9.00/20	DB9.00/20	Bud K369	6-4 1/2 x 4 1/2	BL 51-5	U5	No	Cla B805	2F	H.12	42	8x3 1/2 x 4 1/2	T	
3	703	3	3435	122	122	19500	7535	B9.00/20	DB9.00/20	Bud K369	6-4 1/2 x 4 1/2	BL 5A380	U5	No	Wls 7000Q	2F	H.9	14	64.0	8x3 1/2 x 4 1/2	T
4	87K3	3	4300	128	128	22400	7600	B9.75/20	DB9.75/20	Bud K428	6-4 1/2 x 4 1/2	Fu MHOG	A8	No	Wls 1237Q	2F	H.9	95	72.0	7x3 1/2 x 4 1/2	M
5	3380	4	3380	146	201	22500	7300	B9.75/20	DB9.75/20	Bud K428	6-4 1/2 x 4 1/2	Fu VUOG	A8	No	Wls 1237H	2F	H.9	56	92.0	8x3 1/2 x 4 1/2	M
6	87Q5	4	4575	144	144	27600	9805	B10.50/20	DB10.50/20	Bud K428	6-4 1/2 x 4 1/2	Fu MHOG	A8	No	Wls 1737K	2F	H.9	16	99.0	8x3 1/2 x 4 1/2	M
7	43L5	4	3550	146	201	28105	8905	B9.75/20	DB9.75/20	Bud L525	6-4 1/2 x 5 1/2	Fu VUOG	U5	No	Wls 1737KH	2F	H.9	16	64.0	8x3 1/2 x 4 1/2	M
8	97L5	4	5815	144	144	35620	10810	B10.50/20	DB10.50/20	Bud L525	6-4 1/2 x 5 1/2	Fu VU	U5	A3	Wls 19027	2F	H.11	117	8x4 1/2 x 4 1/2	T	
9	Indian.	85	1885	141	186	10000	3950	B6.50/20	DB6.50/20	Her JXA	6-3 1/2 x 4 1/2	BL 224	U4	No	Tim 53200H	2F	H.5	66	35.1	7 1/2 x 2 1/2 x 4 1/2	T
10	95DR	2 1/2	1095	141	186	12000	4400	P32x6	DB32x6	Her JXC	6-3 1/2 x 4 1/2	BL 124	U4	No	Tim 54300H	2F	H.5	85	36.2	7 1/2 x 2 1/2 x 4 1/2	T
11	17A3	2 1/2	1275	141	186	15000	4650	B7.50/20	DB7.50/20	Her JXC	6-3 1/2 x 4 1/2	BL 224	U4	Op	Wls 4916L	2F	H.6	66	41.2	7 1/2 x 2 1/2 x 4 1/2	T
12	17AD3	2 1/2	2300	156	212	17000	6300	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 3341	A4	Op	Tim 58205H	2F	H.6	83	43.0	8x3 1/2 x 4 1/2	T
13	17B3	2 1/2	2475	156	212	18000	6350	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 3341	A4	Op	Wls 7000H	2F	H.6	83	43.0	8x3 1/2 x 4 1/2	T
14	17C3	2 1/2	2675	170	224	18000	6900	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 3341	U4	Op	Tim 58205H	2F	H.6	83	43.0	8x3 1/2 x 4 1/2	T
15	17DR3	3 1/2	2675	170	224	19000	6700	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 334	U4	Op	Wls 70000	2F	R.6	28	38.6	8 1/2 x 3 1/2 x 4 1/2	T
16	19DR3	3 1/2	3400	170	224	22000	7600	B9.00/20	DB9.00/20	Her YXC	6-4 1/2 x 4 1/2	BL 524	U4	Op	Wls 1237H	2F	R.7	2	52.3	8 1/2 x 3 1/2 x 4 1/2	T
17	43DR4	4	4300	170	224	25000	8000	B9.75/20	DB9.75/20	Her RXB	6-4 1/2 x 5 1/2	BL 524	U4	Op	Wls 1627KH	2F	R.6	96	50.7	9 1/2 x 3 1/2 x 4 1/2	T
18	45DR5	4	4800	170	224	25000	8700	B9.75/20	DB9.75/20	Her RXC	6-4 1/2 x 5 1/2	BL 534	U4	Op	Wls 1737H	2F	R.7	14	45.4	8 1/2 x 3 1/2 x 4 1/2	T
19	47DR5-7	5	7600	188	234	28000	10500	B10.50/20	DB10.50/20	Cum.6HDie.	6-4 1/2 x 6	BL 7351	A5	Op	Wls 1910W	2F	R.7	16	45.0	8 1/2 x 3 1/2 x 4 1/2	T
20	International (S)	D1	3650	133	420	21000	7500	B5.25/18	B5.25/18	Own D	6-3 1/2 x 4 1/2	Own D	U5	Op	Own 12-55	2F	R.5	18	12.7	5 1/2 x 2 1/2 x 4 1/2	T
21	(A)	M2	850	118	118	7000	3180	B6.50/20	B6.50/20	Wau XAH	4-3 1/2 x 4 1/2	Own H-4A	U4	No	Own 713	2F	R.6	16	39.5	5 1/2 x 2 1/2 x 4 1/2	D
22	A2	1 1/2	615	136	160	8000	2945	B6.00/20	B6.00/20	Wau XAH	4-3 1/2 x 4 1/2	Own H-4A	U4	No	Own 708	2F	R.6	16	39.5	5 1/2 x 2 1/2 x 4 1/2	T
23	B2	1 1/2	615	136	136	8000	2945	B6.00/20	B6.00/20	Wau XAH	4-3 1/2 x 4 1/2	Own H-4A	U4	No	Own 704	2F	R.6	16	47.3	5 1/2 x 2 1/2 x 4 1/2	T
24	A3	1 1/2	695	136	160	10000	3572	P30x5	P32x6	Lyc SAH	6-3 1/2 x 4 1/2	Own H-4A	U4	No	Own 710	2F	H.5	28	33.8	7x2 1/2 x 4 1/2	T
25	A3 1/2	1 1/2	970	136	160	10100	3600	B6.50/20	DB6.50/20	Lyc SAH	6-3 1/2 x 4 1/2	WG T7	U4	No	Own 710	2F	H.5	28	33.8	7x2 1/2 x 4 1/2	T
26	A3 1/2	1 1/2	895	138	164	10000	4032	B6.00/20	DB6.00/20	Lyc SAH	6-3 1/2 x 4 1/2	WG T7	U4	No	Own 710	2F	H.5	28	33.8	7x2 1/2 x 4 1/2	T
27	A4	2	6905	166	208	16300	7000	B6.50/20	DB6.50/20	Own FAB-2	6-3 1/2 x 4 1/2	Own H-4A	U4	No	Own 720	2F	R.6	83	43.0	8x3 1/2 x 4 1/2	T
28	A4	2	1045	145	185	12750	5025	B6.50/20	DB6.50/20	Own FAB-3	6-3 1/2 x 4 1/2	Own H-4A	U4	No	Own 750	2F	R.6	5	41.6	8x3 1/2 x 4 1/2	T
29	A4	2	1625	145	185	15750	5251	P32x6	DP32x6	Own FBB	6-3 1/2 x 4 1/2	Own H-5	U5	No	Own 902	2F	R.6	50	47.7	8x3 1/2 x 4 1/2	T
30	A5	3	2100	156	210	18750	5895	P34x7	DP34x7	Own FBB	6-3 1/2 x 4 1/2	Own H-5	U5	No	Own 102	2F	R.7	16	64.7	8x3 1/2 x 4 1/2	T
31	A6	3	2450	156	210	20850	6120	P34x7	DP34x7	Own FBB	6-3 1/2 x 4 1/2	Own H-5	U5	No	Own 1150	2F	R.8	5	76.8	8 1/2 x 3 1/2 x 4 1/2	T
32	W2	3	3300	148	200	24000	8450	P36x8	DP36x8	Has 151	4-4 1/2 x 5 1/2	Own H-6	U5	No	Own 1200	2F	R.6	85	83.7	9x3 1/2 x 4 1/2	T
33	W3	3	3300	148	200	24000	8450	P36x8	DP36x8	Has 152	4-4 1/2 x 5 1/2	Own H-6	U5	No	Own 1200	2F	R.6	85	83.7	9x3 1/2 x 4 1/2	T
34	W4	3	6200	160	225	37000	11590	B9.75/20	DB9.75/20	Own H-7	6-4 1/2 x 5 1/2	Own H-7	U5	No	Own 1301	2F	R.6	37	57.2	12 1/2 x 3 1/2 x 4 1/2	T
35	88	7 1/2	6300	160	225	37000	11590	B9.75/20	DB9.75/20	Own FFB	6-5 1/2 x 5 1/2	Own H-7	U5	No	Own 1301	2F	R.6	37	57.2	12 1/2 x 3 1/2 x 4 1/2	T
36	Kenworth	A2	1480	146	200	13400	4400	P32x6	DB32x6	Her JXC	6-3 1/2 x 4 1/2	BL 234	U4	Op	Tim 54300H	2F	H.5	83	37.4	8x3 1/2 x 4 1/2	T
37	101B	2-2 1/2	2050	144	186	13400	4700	B7.50/20	DB7.50/20	Bud H298	6-3 1/2 x 4 1/2	BL 234	U4	Op	Tim 54300H	2F	H.5	83	37.4	8x3 1/2 x 4 1/2	T
38	89	2 1/2	1670	146	200	15000	4600	B7.50/20	DB7.50/20	Her JXC	6-3 1/2 x 4 1/2	BL 234	A4	Op	Tim 56200H	2F	H.6	16	39.5	8x3 1/2 x 4 1/2	T
39	127	2 1/2-3	2600	154	202	16300	5490	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 334	U4	Op	Tim 56200H	2F	R.6	16	40.0	8x3 1/2 x 4 1/2	T
40	146B	3-4	3300	158	206	19500	5960	B9.00/20	DB9.00/20	Bud K393	6-4 1/2 x 4 1/2	BL 334	U4	Op	Tim 58205H	2F	R.6	83	43.0	8x3 1/2 x 4 1/2	T
41	166B	3 1/2-4	3350	156	204	20700	6890	B9.00/20	DB9.00/20	Bud K393	6-4 1/2 x 4 1/2	BL 334	U4	Op	Tim 58205H	2F	R.6	83	43.0	8x3 1/2 x 4 1/2	T
42	166A	3 1/2-4	4330	156	204	20700	6890	B9.00/20	DB9.00/20	Has 147	6-4 1/2 x 4 1/2	BL 334	U4	Op	Tim 58205H	2F	R.6	83	43.0	8x3 1/2 x 4 1/2	T
43	183	4-5	4675	155	221	25600	7710	B9.75/20	DB9.75/20	Her YXC2	6-4 1/2 x 4 1/2	BL 1554	A4	Op	Tim 75720H	2F	R.7	33	105	7x9 3/4 x 3 1/2	T
44	241	5-7	5450	169	221	27800	9000	B9.75/20	DB9.75/20	Her RXB	6-4 1/2 x 5 1/2	BL 714	U4	A3	Tim 76720W	2F	R.7	33	55.5	7x9 3/4 x 3 1/2	T
45	241B	5-7	9300	169	228	27800	9500	B9.75/20	DB9.75/20	Has 160	6-4 1/2 x 5 1/2	BL 714	U4	A3	Tim 76720W	2F	R.7	33	55.5	7x9 3/4 x 3 1/2	T
46	241C	5-7	6500	169	228	27800	9500	B9.75/20	DB9.75/20	Has 161	6-4 1/2 x 5 1/2	BL 714	U4	A3	Tim 76720W	2F	R.7	33	55.5	7x9 3/4 x 3 1/2	T
47	241C	5-7	7200	174	228	27800	10000	B9.75/20	DB9.75/20	Has 175	6-5 1/2 x 5 1/2	BL 714	U4	A3	Tim 76720W	2F	R.6	38	86.5	8x3 1/2 x 4 1/2	T
48	Kleiber	80	1300	140	160	11200	3950	B7.00/20	DB7.00/20	Her JNB	6-3 1/2 x 4 1/2	BL 2241	U4	No	Tim 53200H	2F	H.5	14	34.0	5 1/2 x 3 1/2 x 4 1/2	T
49	100	2-3 1/2	1575	158	170	13400	4400	B7.50/20	DB7.50/20	Her JNB	6-3 1/2 x 4 1/2	BL 3241	U4	No	Tim 54200H	2F	H.5	81	38.7	7 1/2 x 3 1/2 x 4 1/2	T
50	120	2-3 1/2	2100	170	180	16300	5150	B8.25/20	DB8.25/20	Con E601	6-3 1/2 x 4 1/2	BL 3241	U4	No	Tim 56200H	2F	R.6	17	33.4	7 1/2 x 3 1/2 x 4 1/2	T
51	120	3-5 1/2	2650	180	190	20700	6500	B8.25/20	DB8.25/20	Con 18R	6-4 1/2 x 4 1/2	BL 3241	U4	No	Tim 58200H	2F	R.6	84	38.7	7 1/2 x 3 1/2 x 4 1/2	T
52	140	4-6	3200	186	200	22000	7600	B9.00/20	DB9.00/20	Con 21R	6-4 1/2 x 4 1/2	BL 3241	U4	No	Tim 58200H	2F	R.6	14	42.0	8 1/2 x 3 1/2 x 4 1/2	T
53	KD4	4	5400	190	200	22000	8000	B9.00/20	DB9.00/20	Con H. Die	6-4 1/2 x 6	BL 3351	U4	No	East DR 6500W	2F	R.5	5	70.7	7 1/2 x 3 1/2 x 4 1/2	T
54	KD6	4	6000	206	210	26000	9500	B9.75/20	DB9.75/20	Cum.6HDie.	6-4 1/2 x 6	BL 714	U4	A4	Eat 65041W	2F	R.5	5	91.8	8 1/2 x 3 1/2 x 4 1/2	T
55	La Fr. Republic	C-2	1100	150	162	11000	3800	B6.00/20	DB6.00/20	Lyc SA	6-3 1/2 x 4 1/2	WG T9	U4	No	Tim 53200H	2F	R.5	67	35.9	5 1/2 x 2 1/2 x 4 1/2	T
56	D-2	2-2 1/2	1485	162	175	14000	4600	B6.50/20	DB6.50/20	Lyc SB	6-3 1/2 x 4 1/2	WG T9	U4	No	Tim 54200H	2F	R.5	83	37.9	7x3 1/2 x 4 1/2	T
57	E-2	2 1/2-3	2005	162	190	17000	5375	P32x6	DP32x6	Lyc ASD	6-3 1/2 x 4 1/2	Fu MGU-Bb									

Line Number	MAKE AND MODEL	GENERAL (See Keynote)					TIRE SIZE		MAJOR UNITS										FRAME		
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE		TRANSMISSION		REAR AXLE				Gear Type	Drive and Torque	Side Rail Dimensions	Type
										Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Location and Forward Speeds	Aux. Location and Speeds					GEAR RATIOS	In High	In Low
1	Reo (Concluded)	2-4	1245	142	184	15000	4475	B7.00/20	DB7.00/20	Own	6-3 1/2 x 5	Own	U4	O2	Own	SF	H	6.6	42.9	7 1/2 x 3 1/2	C
2	2H (2J, 2K) 1-2	2-4	1795	170	205	17500	5125	B7.50/20	DB7.50/20	Own	6-3 1/2 x 5	Own	U4	O2	Own	SF	H	6.5	42.9	7 1/2 x 3 1/2	C
3	3H (3J, 3K, 3M) 1-2	2-4	2595	170	205	20000	6280	B9.00/20	DB9.00/20	Own	8-3 1/2 x 5	Own	U4	O2	Own	BF	H	5.14	40.5	10 1/2 x 3 1/2	C
4	Schacht 10H 1-2	2-4	1295	156	195	15000	4850	B6.50/20	DB6.50/20	Con 16C	6-3 1/2 x 4 1/2	BL 35	U4	No	Tim	BF	H	5.83	31.2	6 1/2 x 3 1/2	P
5	15HA 2-4	2-4	1735	156	195	13000	5200	B8.25/20	DB8.25/20	Con 16C	6-3 1/2 x 4 1/2	BL 35	U4	No	Tim	BF	H	6.06	38.5	6 1/2 x 3 1/2	P
6	20HA 2-4	2-4	2185	160	207	15300	5450	B8.25/20	DB8.25/20	Her WXC	6-4 x 1 1/2	Own	U5	No	Tim	BF	H	6.06	38.5	6 1/2 x 3 1/2	P
7	25HA 3-4	2-4	2695	146	213	19500	5750	B9.00/20	DB9.00/20	Her WXC	6-4 x 1 1/2	Fu 5A-38	U5	No	Tim	BF	H	6.02	39.2	7 1/2 x 3 1/2	P
8	28HA 4-5	2-4	3050	146	227	23000	6000	B9.75/20	DB9.75/20	Her WXC	6-4 x 1 1/2	Fu 5A-38	U5	No	Tim	BF	H	6.83	43.8	7 1/2 x 3 1/2	P
9	30HA 4-6	2-4	3295	146	227	23000	6000	B9.75/20	DB9.75/20	Her WXC	6-4 x 1 1/2	Fu 5A-38	U5	No	Tim	BF	H	6.83	43.8	7 1/2 x 3 1/2	P
10	35HA 5-7	2-4	3725	146	227	24000	7400	B9.75/20	DB9.75/20	Her WXC2	6-4 x 1 1/2	Fu 5A-38	U5	No	Tim	BF	H	7.14	46.4	7 1/2 x 3 1/2	P
11	40H 7-9	2-4	4295	154	235	25000	7600	B9.75/20	DB9.75/20	Her YXC	6-4 x 1 1/2	Fu 5A-53	U5	No	Tim	BF	H	7.07	49.7	8 1/2 x 3 1/2	P
12	40HB 7-9	2-4	4695	154	235	25000	7600	B9.75/20	DB9.75/20	Her YXC	6-4 x 1 1/2	Fu 5A-53	U5	No	Tim	BF	H	7.07	49.7	8 1/2 x 3 1/2	P
13	60HA 8-11	2-4	5895	152	247	35000	9820	B10.50/24	DB10.50/24	Her RXC	6-4 x 1 1/2	Fu 5A-53	U5	No	Tim	BF	H	7.07	49.8	8 1/2 x 3 1/2	P
14	(T) TRD 10	2-4	4150	148	174	35000	7100	B9.00/20	DB9.00/20	Her YXC	6-4 x 1 1/2	Fu 5A-53	U5	No	Tim	BF	H	7.8	56.8	7 1/2 x 3 1/2	P
15	(T) TRD 12	2-4	4350	148	174	39000	7226	B9.75/20	DB9.75/20	Her YXC3	6-4 x 1 1/2	Fu 5A-53	U5	No	Tim	BF	H	7.8	56.8	7 1/2 x 3 1/2	P
16	(T) TRD 15	2-4	4595	148	174	45000	7326	B9.75/20	DB9.75/20	Her RXC	6-4 x 1 1/2	Fu 5A-53	U5	No	Tim	BF	H	7.8	56.8	7 1/2 x 3 1/2	P
17	Sterling FB40 1-2	2-4	1135	142	162	11000	3450	B6.50/20	DB6.50/20	Con 25A	6-3 1/2 x 4	WG T9	U4	No	Tim	BF	H	5.66	36.2	6 1/2 x 3 1/2	C
18	FB50 2-3	2-4	1340	192	222	11500	3660	B7.00/20	DB7.00/20	Con 25A	6-3 1/2 x 4	WG T9	U4	No	Tim	BF	H	5.66	36.2	6 1/2 x 3 1/2	C
19	FB60 2-3	2-4	1500	142	162	14000	4150	B7.00/20	DB7.00/20	Wau TL	6-3 1/2 x 4 1/2	WG T9	U4	No	Tim	BF	H	5.83	37.3	6 1/2 x 3 1/2	C
20	FB70 2-3	2-4	2635	174	204	17000	5755	B7.50/20	DB7.50/20	Wau ML	6-4 x 1 1/2	Own UC7	U5	No	Tim	BF	H	7.4	52.7	10 1/2 x 3 1/2	P
21	FB80 3-4	2-4	3065	174	204	21000	6680	B8.25/20	DB8.25/20	Wau ML	6-4 x 1 1/2	Own UC7	U5	No	Tim	BF	H	7.8	55.6	10 1/2 x 3 1/2	P
22	FB80 Spec 3-4	2-4	3010	174	204	21000	6680	B8.25/20	DB8.25/20	Wau ML	6-4 x 1 1/2	Own UC7	U5	No	Tim	BF	H	7.8	55.6	10 1/2 x 3 1/2	P
23	FC90 4-5	2-4	4105	174	204	22000	7480	B9.00/20	DB9.00/20	Wau 6MK	6-4 x 1 1/2	Own UC7	U5	No	Tim	CD	R	8.66	61.7	10 1/2 x 3 1/2	P
24	FD90 4-5	2-4	3815	174	204	22000	7480	B9.00/20	DB9.00/20	Wau 6MK	6-4 x 1 1/2	Own UC7	U5	No	Tim	CD	R	8.66	61.7	10 1/2 x 3 1/2	P
25	FD75 4-5	2-4	4185	192	222	26000	8200	P36x8	DP36x8	Wau 6MK	6-4 x 1 1/2	Own UC2	U4	Op	Own	w/2F	R	9.3	61.2	12 1/2 x 3 1/2	P
26	FD100 5-6	2-4	4690	192	222	32000	8750	P40x8	DP40x8	Wau 6MK	6-4 x 1 1/2	Own UC2	U4	Op	Own	w/2F	R	10.20	54.6	12 1/2 x 3 1/2	P
27	FD105 5-6	2-4	4790	192	222	32000	8750	P40x8	DP40x8	Wau 6MK	6-4 x 1 1/2	Own UC2	U4	Op	Own	w/2F	R	10.20	54.6	12 1/2 x 3 1/2	P
28	FD107 5-6	2-4	4890	192	222	32000	8750	P40x8	DP40x8	Wau 6MK	6-4 x 1 1/2	Own UC2	U4	Op	Own	w/2F	R	10.20	54.6	12 1/2 x 3 1/2	P
29	FD140 7-8	2-4	6285	192	222	35000	10050	P40x8	DP42x9	Wau 6-125	6-4 x 1 1/2	Own UC2	U4	Op	Own	w/2F	R	10.0	66.6	12 1/2 x 3 1/2	P
30	FD135 7-8	2-4	4890	192	222	35000	8900	P40x8	DP40x8	Wau 6-125	6-4 x 1 1/2	Own UC2	U4	Op	Own	w/2F	R	9.3	62.2	12 1/2 x 3 1/2	P
31	FD140 7-8	2-4	5245	200	230	36000	8350	P40x8	DP40x8	Wau 6-125	6-4 x 1 1/2	Own UC2	U4	Op	Own	w/2F	R	10.0	66.6	12 1/2 x 3 1/2	P
32	FD145 7-8	2-4	6180	200	230	37000	10100	P40x8	DP40x8	Wau 6-125	6-4 x 1 1/2	Own UC2	U4	Op	Own	w/2F	R	10.0	66.6	12 1/2 x 3 1/2	P
33	FD170 9-10	2-4	6980	200	230	35000	10550	P40x8	DP42x9	Wau AB	6-4 x 1 1/2	Own UC8	U4	Op	Own	w/2F	R	10.0	66.6	12 1/2 x 3 1/2	P
34	FD170 9-10	2-4	6980	200	230	40000	10550	P40x8	DP42x9	Wau RB	6-4 x 1 1/2	Own UC8	U4	Op	Own	w/2F	R	10.0	66.6	12 1/2 x 3 1/2	P
35	FD195 12-12 1/2	2-4	8925	200	230	39000	10750	B10.50/20	DB10.50/20	Cum H Die	6-4 x 1 1/2	BL 734	U4	Op	Wls 1910W	2F	H	8.88	55.8	15 1/2 x 3 1/2	P
36	Stewart 41X 1-2	2-4	695	124	124	8500	2875	B6.50/18	B6.50/18	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Tim	SF	H	5.4	35.1	6 1/2 x 3 1/2	C
37	41X 1-2	2-4	730	134	145	8500	2925	B6.50/18	B6.50/18	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Tim	SF	H	5.4	35.1	6 1/2 x 3 1/2	C
38	44X 1 1/2	2-4	700	134	145	8500	3250	B6.50/20	B6.50/20	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Tim	SF	H	5.61	35.8	7 1/2 x 3 1/2	C
39	42X 1 1/2	2-4	825	145	176	9000	3455	B6.50/20	B6.50/20	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Tim	SF	H	5.61	35.8	7 1/2 x 3 1/2	C
40	43X 2 1/2	2-4	1075	145	176	9000	4005	B10.50/20	DB10.50/20	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Tim	SF	H	6.3	41.7	7 1/2 x 3 1/2	C
41	45X 2 1/2	2-4	1375	145	190	13500	4350	B7.00/20	DB7.00/20	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Tim	SF	H	6.37	40.7	7 1/2 x 3 1/2	C
42	29X 3 1/2	2-4	1795	145	220	15000	5190	B7.00/20	DB7.00/20	Lyc	6-3 1/2 x 4 1/2	BL	U5	No	Tim	SF	H	7.16	40.7	7 1/2 x 3 1/2	C
43	32X 3 1/2	2-4	2090	165	220	18000	5460	B7.00/20	DB7.00/20	Lyc	6-3 1/2 x 4 1/2	BL	U5	No	Tim	SF	H	7.16	40.7	7 1/2 x 3 1/2	C
44	32X 3 1/2	2-4	2290	170	226	18000	6025	B7.50/20	DB7.50/20	Lyc	6-3 1/2 x 4 1/2	BL	U5	No	Tim	SF	H	7.16	40.7	7 1/2 x 3 1/2	C
45	32X 3 1/2	2-4	2690	165	220	20000	6600	B7.50/20	DB7.50/20	Lyc	6-3 1/2 x 4 1/2	Fu	U5	No	Tim	SF	H	7.16	40.7	7 1/2 x 3 1/2	C
46	32X 3 1/2	2-4	2790	165	220	20000	6600	B7.50/20	DB7.50/20	Lyc	6-3 1/2 x 4 1/2	Fu									

Line Number	ENGINE DETAILS										FUEL SYST.	ELEC-TRICAL	FRONT AXLE	BRAKES		BODY MOUNT-ING DATA		SPRINGS		Auxiliary Type												
	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	MAIN BEARINGS		Governor Make				Carburetors Make	Fuel Feed	Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make		Universal Make	Make and Model	Steering Gear Make	SERVICE		Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	
								Number and Diameter	Length		Oiling System Type	Lining Area	Drum Material																			
1	268	4.9	175	27.3	75-2800	L	L	C	7-2 1/2	12	CC	No	Str	M	DR	DR	P.B.L	Mc	Cle	Own	Ros	L4IH	289	a	TX	116	60	34	40x2 1/2	52x2 1/2		
2	309	4.9	200	31.5	85-2800	L	L	C	7-2 1/2	12	CC	No	Str	M	DR	DR	P.B.L	Mc	Cle	Own	Ros	L4IH	344	a	TX	124	68	34	44x3	54x3		
3	358	4.9	230	36.4	110-2800	L	L	C	7-2 1/2	12	CC	No	Str	M	DR	DR	P.B.L	Mc	Cle	Own	Ros	L4IH	390	a	TX	143	83	34	44x3	56x3 1/2		
4	248	5.1	150	27.3	65-2600	L	L	C	7-2 1/2	10	CC	No	Str	M	DR	DR	P.B.L	Mc	Cle	Own	Ros	L4IH	380	G	TX	129	83	31	40x2 1/2	50x3		
5	248	5.1	150	27.3	65-2600	L	L	C	7-2 1/2	10	CC	No	Str	M	DR	DR	P.B.L	Mc	Cle	Own	Ros	L4IH	452	G	TX	129	83	31	40x2 1/2	50x3		
6	339	4.7	225	38.4	73-2200	L	L	C	7-2 1/2	13	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Tim	Ros	L4IH	452	G	TX	106	Opt	31 1/2	40x2 1/2	50x3		
7	339	4.7	225	38.4	73-2200	L	L	C	7-2 1/2	13	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Tim	Ros	L4IH	452	G	TX	106	Opt	31 1/2	40x2 1/2	50x3		
8	339	4.7	225	38.4	73-2200	L	L	C	7-2 1/2	13	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	658	G	TX	106	Opt	31 1/2	40x2 1/2	50x3		
9	339	4.7	225	38.4	73-2200	L	L	C	7-2 1/2	13	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	658	G	TX	106	Opt	31 1/2	40x2 1/2	50x3		
10	360	4.7	238	40.8	80-2200	L	L	C	7-2 1/2	13	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	768	H	TD	106	Opt	31 1/2	40x2 1/2	50x3		
11	428	4.4	280	45.9	93-2200	L	L	C	7-2 1/2	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	768	H	TD	106	Opt	31 1/2	40x2 1/2	50x3		
12	528	4.4	355	51.2	115-2200	L	L	C	7-2 1/2	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	893	G	TX	106	Opt	31 1/2	40x2 1/2	50x3		
13	528	4.4	355	51.2	115-2200	L	L	C	7-2 1/2	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	893	G	TX	106	Opt	31 1/2	40x2 1/2	50x3		
14	428	4.4	280	45.9	93-2200	L	L	C	7-2 1/2	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	893	H	TD	92 1/2	Opt	31 1/2	40x2 1/2	50x3		
15	478	4.4	318	51.2	103-2200	L	L	C	7-2 1/2	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	893	H	TD	92 1/2	Opt	31 1/2	40x2 1/2	50x3		
16	529	4.4	355	51.2	115-2200	L	L	C	7-2 1/2	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Ros	L4IH	893	H	TD	92 1/2	Opt	31 1/2	40x2 1/2	50x3		
17	214	5.0	137	28.0	72-3300	L	L	C	4-2 1/2	6 1/2	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	30000H	Ros	L4IH	269	P	TX	96	57	34	38x2 1/2	50x2 1/2	
18	214	5.0	137	28.0	72-3300	L	L	C	4-2 1/2	6 1/2	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	30000H	Ros	L4IH	269	P	TX	96	57	34	38x2 1/2	50x2 1/2	
19	255	5.0	157	32.0	85-2500	L	L	C	4-2 1/2	7 1/2	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	31000H	Ros	L4IH	282	P	TX	96	57	34	38x2 1/2	50x2 1/2	
20	358	4.4	230	36.4	110-2800	L	L	C	7-2 1/2	12	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	31000H	Ros	L4IH	330	a	TX	144	91	34	42x2 1/2	54x3	
21	358	4.4	230	36.4	110-2800	L	L	C	7-2 1/2	12	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	31000H	Ros	L4IH	330	a	TX	144	91	34	42x2 1/2	54x3	
22	358	4.4	230	36.4	110-2800	L	L	C	7-2 1/2	12	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	31000H	Ros	L4IH	330	a	TX	144	91	34	42x2 1/2	54x3	
23	381	4.4	240	40.8	85-2500	L	L	C	7-2 1/2	12	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	33000H	Ros	L4IH	392	a	TX	144	91	34	42x2 1/2	54x3	
24	381	4.4	240	40.8	85-2500	L	L	C	7-2 1/2	12	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	33000H	Ros	L4IH	392	a	TX	144	91	34	42x2 1/2	54x3	
25	462	4.5	300	45.9	102-2400	L	L	C	7-2 1/2	13	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	35000H	Ros	L4IH	466	a	TX	172	108	34	48x3	54x3	
26	381	4.4	240	40.8	85-2500	L	L	C	7-2 1/2	12	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	35000H	Ros	L4IH	466	a	TX	172	108	34	48x3	54x3	
27	462	4.5	300	45.9	102-2400	L	L	C	7-2 1/2	13	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	35000H	Ros	L4IH	466	a	TX	172	108	34	48x3	54x3	
28	462	4.5	300	45.9	102-2400	L	L	C	7-2 1/2	13	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	35000H	Ros	L4IH	466	a	TX	172	108	34	48x3	54x3	
29	462	4.5	300	45.9	102-2400	L	L	C	7-2 1/2	13	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	35000H	Ros	L4IH	466	a	TX	172	108	34	48x3	54x3	
30	462	4.5	300	45.9	102-2400	L	L	C	7-2 1/2	13	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	35000H	Ros	L4IH	466	a	TX	172	108	34	48x3	54x3	
31	489	4.5	295	43.4	125-2400	L	L	C	4-3 1/2	11 1/2	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	26450N	Ros	W4IA	690	a	TX	172	108	34	48x3	60x4	
32	549	4.5	330	48.6	99-2000	L	L	C	4-3 1/2	11 1/2	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	26450N	Ros	W4IA	690	a	TX	172	108	34	48x3	54x3	
33	549	4.5	330	48.6	99-2000	L	L	C	4-3 1/2	11 1/2	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	26450N	Ros	W4IA	690	a	TX	172	108	34	48x3	54x3	
34	677	4.4	440	60.0	125-2000	L	L	C	4-3 1/2	16 1/2	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	27450N	Ros	W4IA	690	a	TX	172	108	34	48x3	54x3	
35	677	4.4	440	60.0	125-2000	L	L	C	4-3 1/2	16 1/2	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spl	Tim	27450N	Ros	W4IA	690	a	TX	172	108	34	48x3	54x3	
36	224	4.8	142	25.3	62-2800	L	L	C	4-2 1/2	8 1/2	CC	No	Zen	P	DR	DR	P.BB	Fe	Spl	Spl	Ros	B4IM	180	a	TX	92	51	32	38 1/2 x 2 1/2	50x2 1/2		
37	224	4.8	142	25.3	62-2800	L	L	C	4-2 1/2	8 1/2	CC	No	Zen	P	DR	DR	P.BB	Fe	Spl	Spl	Ros	B4IM	180	a	TX	92	51	32	38 1/2 x 2 1/2	50x2 1/2		
38	224	4.8	142	25.3	62-2800	L	L	C	4-2 1/2	8 1/2	CC	No	Zen	P	DR	DR	P.BB	Fe	Spl	Spl	Ros	B4IM	226	a	TX	92	51	32	38 1/2 x 2 1/2	50x2 1/2		
39	224	4.8	142	25.3	62-2800	L	L	C	4-2 1/2	8 1/2	CC	No	Zen	P	DR	DR	P.BB	Fe	Spl	Spl	Ros	B4IM	317	a	TX	92	51	32	38 1/2 x 2 1/2	50x2 1/2		
40	242	5.0	162	32.0	65-2800	L	L	C	4-2 1/2	9 1/2	CC	No	Zen	P	DR	DR	P.BB	Fe	Spl	Spl	Ros	B4IM	317	a	TX	103 1/2	62	32	38 1/2 x 2 1/2	50x2 1/2		
41	242	5.0	162	32.0	65-2800	L	L	C	4-2 1/2	9 1/2	CC																					

Line Number	MAKE AND MODEL	GENERAL (See Keynote)				TIRE SIZE		MAJOR UNITS										FRAME		
		Wheels Driven—4-Wheelers	Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE		TRANSMISSION		REAR AXLE				Type	
											Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aut. Location and Speeds	Make and Model	Gear and Type	Drive and Torque		GEAR RATIOS	In High	In Low	Side Rail Dimensions
1	Corbett (3) 15FD6	3-4	5700	Op	Op	.....	8100	B8.25/20	DB8.25/20	DB8.25/20	Con 21R	6-4x4x4	FuL 5A53	U5 A2	Wis 70000L	2F	H 8.00	Opt	9x3x1/4	T
2	(Conclud) 18FD6	3-4	6300	Op	Op	.....	9200	B9.00/20	DB9.00/20	DB9.00/20	Con 22R	6-4x4x4	FuL 5A53	U5 A2	Wis 1237H	2F	H 8.00	Opt	9x3x1/4	T
3	FWD.....H4	1 1/2-2	3325	120	160	11000	5300	P34x7	P34x7	P34x7	Wis SU	4-4x5	Cot A	A4 Op	Own H	BF	H 7.86	38.0	5 1/2x2 1/4x1/4	T
4	.....H6	2-3	3385	135	180	13000	5900	P9.00/20	P9.00/20	P9.00/20	Wau MS	6-3x4x4	BL 51	U4 No	Own H	BF	H 8.92	47.7	5 1/2x2 1/4x1/4	T
5	.....HH-6	2 1/2-3	4135	138	170	16000	6900	P9.75/20	P9.75/20	P9.75/20	Wau MK	6-4x4x4	BL 55	A4 R2	Own U	BF	H 6.95	84.7	5 1/2x2 1/4x1/4	T
6	.....B	3-4	4200	124	156	15500	6460	S36x6	S36x6	S36x6	Own A	4-4x5x5	Cot DAF	A3 Op	Own B	BF	H 8.9	35.6	5 1/2x2 1/4x1/4	T
7	.....CU-6	3 1/2-4	4885	147	179	19500	8000	B10.50/20	B10.50/20	B10.50/20	Wau SRS	6-4x4x5	Own U	A5 Op	Own U	BF	H 7.35	73.1	7x3x1/4	T
8	.....CU6A	4-5	4685	147	179	19000	7800	B10.50/20	B10.50/20	B10.50/20	Wau SRS	6-4x4x5	BL 615	U5 Op	Own U	BF	H 6.72	55.2	7x3x1/4	T
9	.....SSU	4-5	5135	147	179	22000	8300	B11.25/20	B11.25/20	B11.25/20	Wau SRL	6-4x4x5	Own U	A5 Op	Own U	BF	H 7.35	73.1	7x3x1/4	T
10	.....SSUA	4-5	4835	147	179	21500	8100	B11.25/20	B11.25/20	B11.25/20	Wau SRL	6-4x4x5	BL 706	U5 Op	Own M	BF	H 7.35	73.1	7x3x1/4	T
11	.....M5	5-7 1/2	7200	165	195	29500	11200	B12.75/20	B12.75/20	B12.75/20	Wau SRS	6-4x4x5	BL 714	U4 A2	Wis 131W	2F	H 10.0	207	8x3x1/4	T
12	.....MP6	5-6	5785	147	179	24500	9100	B10.50/20	DB10.50/20	DB10.50/20	Wau SRS	6-4x4x5	Own U	A5 Op	Own M	BF	H 7.35	73.0	8x3x1/4	T
13	(Ft.-Wh.-Dr.) LBU	5-6	4900	171	Op	23500	9000	B9.00/20	DB9.00/20	DB9.00/20	Wau SRS	6-4x4x5	BL 55	U4 Op	Own U	D	H 7.35	39.5	7x3x1/4	T
14	.....M7	7 1/2-10	8500	165	195	37000	12400	P40x10	P40x10	P40x10	Wau RB	6-5x5x5	BL 714	U4 A2	Wis 131W	2F	H 8.36	173	10x3x1/4	T
15	(T)60-T	25-30	6300	134	Op	72000	10000	B10.50/20	DB10.50/20	DB10.50/20	Wau 125	6-4x4x5	Own U	A5 Op	Own M	BF	H 7.35	73.1	7x3x1/4	T
16	(T)72-T	25-30	7000	120	Op	72000	10450	B9.75/20	DB9.75/20	DB9.75/20	Wau 125	6-4x4x5	BL 724	U4 No	Wis 1237	2F	H 6.7	47.4	8x3x1/4	T
17	Ind.....12X4	1 1/2	2650	141	.....	10000	4350	B6.50/20	DB6.50/20	DB6.50/20	Her JXC	6-3x4x4	BL	U4 A2	Wis 53200H	2F	H 15.4	54.0	7 1/2x2 1/4x1/4	T
18	.....14X4	2 1/2	3950	141	.....	14000	5900	B7.50/20	DB7.50/20	DB7.50/20	Her WXB	6-3x4x4	BL	U4 U2	Wis	2F	H 5.40	50.0	7 1/2x2 1/4x1/4	T
19	.....16X4	3	4850	156	.....	16000	7500	B8.25/20	DB8.25/20	DB8.25/20	Her WXC2	6-4x4x4	BL	U4 U2	Wis	2F	H 6.06	89.0	8x3x1/4	T
20	.....18X4	3 1/2	5550	160	.....	21000	9000	B9.00/20	DB9.00/20	DB9.00/20	Her YXC	6-4x4x4	BL	U4 A2	Wis	2F	H 7.83	110	8 1/2x3x1/4	T
21	.....18X4A	3 1/2	5400	160	224	21000	8700	B9.00/20	DB9.00/20	DB9.00/20	Her YXC3	6-4x4x4	BL	U4 A2	Wis	2F	H 6.14	38.6	8 1/2x3x1/4	T
22	.....20X4	4-5	7200	188	.....	24000	10600	B9.75/20	DB9.75/20	DB9.75/20	Her HXB	6-5x6x6	BL	U4 A2	Wis	2F	H 8.00	128	9x3x1/4	T
23	.....22X4	4-5	10000	200	.....	31000	14000	B10.50/20	DB10.50/20	DB10.50/20	Her HXC	6-5x6x6	BL	U4 A2	Wis	2F	H 9.1	86.0	8 1/2x3x1/4	T
24	Mar-Herr.....A10	1 1/2-2	2350	135	155	.....	4650	B6.50/20	DB6.50/20	DB6.50/20	Her JXA	6-3x4x4	WG T9	U4 A2	Own-Tim	BF	H 6.02	82.0	7 1/2x2 1/4x1/4	T
25	.....A20	2 1/2-3	3250	135	155	.....	5150	B7.50/20	DB7.50/20	DB7.50/20	Her JXC	6-3x4x4	CL R103	U5 A2	Own-Tim	BF	H 6.33	80.0	7 1/2x2 1/4x1/4	T
26	.....A30	3 1/2-4	4300	155	167	.....	7000	B8.25/20	DB8.25/20	DB8.25/20	Her WXC	6-4x4x4	Fu 5A380	U5 A2	Own-Tim	BF	H 6.17	116	9 1/2x3x1/4	T
27	.....A40	4-4 1/2	4900	155	167	.....	7500	B9.00/20	DB9.00/20	DB9.00/20	Her WXC3	6-4x4x4	Fu 5A380	U5 A2	Own-Tim	BF	H 7.80	133	9 1/2x3x1/4	T
28	.....A50	4-4 1/2	5700	155	167	.....	8150	B9.00/20	DB9.00/20	DB9.00/20	Her WXC3	6-4x4x4	Fu 5A380	U5 A2	Own-Tim	BF	H 8.0	136	9 1/2x3x1/4	T
29	.....TH300	4 1/2-5	6150	163	193	.....	8985	B9.75/20	DB9.75/20	DB9.75/20	Her YXC	6-4x4x4	Fu 5A380	U5 A2	Own-Wis	2F	H 8.0	143	8 1/2x3x1/4	T
30	.....TH310	5-5 1/2	7150	163	193	.....	9620	B9.75/20	DB9.75/20	DB9.75/20	Her YXC3	6-4x4x5	Fu 5A530	U5 A2	Own-Wis	2F	H 8.0	143	8 1/2x3x1/4	T
31	.....TH310A	5-5 1/2	8050	163	193	.....	10120	B9.75/20	DB9.75/20	DB9.75/20	Her RXC	6-4x4x5	Fu 5A530	U5 A2	Own-Wis	2F	H 7.79	140	8 1/2x3x1/4	T
32	(13) TH315	5-6	9350	198	216	.....	10950	B10.50/20	DB10.50/20	DB10.50/20	Her HXB	6-5x6x6	BL 724	U4 A3	Own-Wis	2F	H 7.79	140	8 1/2x3x1/4	T
33	(13) TH320	8-9	11500	198	228	.....	14200	B10.50/20	DB10.50/20	DB10.50/20	Her HXC	6-5x6x6	BL 724	U4 A3	Own-Wis	2F	H 8.05	166	10x3x1/4	T
34	Oshkosh.....JSW	1 1/2-2	2650	123	Op	10660	4850	B7.00/20	DB7.00/20	DB7.00/20	Her WXC	6-3x4x4	BL 224	U4 A3	Own JSB	BF	H 6.19	40.1	6x3x1/4	T
35	.....JSB	1 1/2-2	2490	149	Op	10750	4760	B7.00/20	DB7.00/20	DB7.00/20	Her JXC	6-3x4x4	BL 51-4	U4 No	Own JSB	BF	H 6.19	40.1	6x3x1/4	T
36	.....LB	2-3	4275	146	165	.....	6700	B9.00/20	DB9.00/20	DB9.00/20	Her JXC	6-3x4x4	BL 51-4	U4 No	Own LB	BF	H 7.3	39.0	7x3x1/4	T
37	.....LC	2 1/2-3	4575	146	165	15150	6950	B9.00/20	B9.00/20	B9.00/20	Her WXC	6-4x4x4	Fu 5A380	U5 A2	Own LC	BF	H 7.3	53.1	7x3x1/4	T
38	.....B38	3 1/2-4	4960	146	165	19475	8175	B10.50/20	B10.50/20	B10.50/20	Her WXC3	6-4x4x4	Fu 5A380	U5 A2	Own B38	BF	H 6.10	86.2	7x3x1/4	T
39	.....B3D	3 1/2-4	4960	146	165	19700	8400	B10.50/20	B10.50/20	B10.50/20	Her WXC3	6-4x4x4	Fu 5A380	U5 A2	Own B3D	BF	H 7.00	98.0	7x3x1/4	T
40	.....C38	4-5	5150	148	165	21850	8350	B11.25/20	B11.25/20	B11.25/20	Her YXC2	6-4x4x4	Fu 5A530	U5 A2	Own C38	BF	H 6.10	86.2	7x3x1/4	T
41	.....C3D	4-5	5795	146	165	22200	8700	B11.25/20	B11.25/20	B11.25/20	Her YXC2	6-4x4x4	Fu 5A530	U5 A2	Own C3D	BF	H 6.40	90.2	7x3x1/4	T
42	.....FC5	5-6	5990	146	165	22725	9225	B11.25/20	B11.25/20	B11.25/20	Her RXB	6-4x4x5	Fu 5A530	U5 A2	Own FC	BF	H 7.60	67.6	7x3x1/4	T
43	.....FC6	5-6	6350	146	165	25000	9500	B11.25/20	B11.25/20	B11.25/20	Her RXC	6-4x4x5	Fu 5A530	U5 A2	Own FC	BF	H 7.20	106	7x3x1/4	T
44	.....FD	6-7 1/2	7350	146	165	30000	11500	B10.50/20	DB10.50/20	DB10.50/20	Her GXB	6-4x4x5	Fu 5A530	U5 A2	Own FD	BF	H 7.20	101	8x3x1/4	T
45	.....BG3	7 1/2-10	8500	165	175	37000	13200	P40x10	DP40x10	DP40x10	Her HXC	6-5x5x5	BL 734	U4 A3	Own BG3	2F	H 6.20	101	10x3x1/4	T
46	.....GD	10	9900	165	175	38000	14200	B13.50/20	B13.50/20	B13.50/20	Her HXD	6-5x5x6	BL 734	U4 A3	Own GD	2F	H 6.20	101	10x3x1/4	T
47	Walter.....FN	2 1/2-3 1/2	4500	120	144	16000	6500	B9.00/20	DB9.00/20	DB9.00/20	Own 6MK	6-4x4x4	Own FM	U5 No	Own FM	2D	H 7.0	70.0	7x2x1/4	T
48	.....FM	3 1/2-5	5500	120	144	20000	7500	B9.00/20	DB9.00/20	DB9.00/20	Own 6SR	6-4x4x4	Own FM	U5 No	Own FM	2D	H 6.0	60.0	12x2x1/4	T
49	.....FKD	4-6	6300	118	166	24000	8500	B9.00/20	DB9.00/20	DB9.00/20	Own 6SR	6-4x4x4	Own FM	U5 No	Own FM	2D	H 8.5	85.0	10x3x1/4	T
50	.....FCS	5-7	7200	136	160	27000	9500	B9.75/20	DB9.75/20	DB9.75/20	Own 6SR	6-4x4x5	Own FM	U5 No	Own FM	2D	H 8.5	85.0	10x3x1/4	T
51	.....FBS	5-7	7900	136	160	27000	9500	B9.75/20	DB9.75/20	DB9.75/20	Own 6RB	6-5x5x5	Own FM	U5 No	Own FM	2D	H 8.5	85.0	10x3x1/4	T
52	.....FBS	5-7																		

Six-Wheelers

53	B'kway 180SBT	2C 5-7 1/2	4200	212	224	28000	9795	B8.25/20	BD8.25/20	BD8.25/20	Con 32B	6-4 1/4x4 1/4	Fu 5A38	U5 Op	Tim SBT-251	2F	T 6.14	48.5	8 1/4x3x3/4	B	53
54	Corbett.....16SFD6	2-3	5500	Op	Op	5110	B6.50/20	DB6.50/20	DB6.50/20	Con E602	6-4 1/4x4 1/4	Fu 5A38	U5 A2	Tim SD75H	2F	R 7.36	Opt	7x3 1/2x1 1/4	T	54
55	(3) 16SFD6	2 1/2-4	5900	Op	Op	7040	B7.50/20	DB7.50/20	DB7.50/20	Lyc AEF	8-3 1/4x4 1/4	Fu 5A53	U5 A2	Tim SD75W	2F	R 7.36	Opt	8x3 1/2x1 1/4	T	55
5620SW6	4R 3-5	5720	Op	Op	9000	B7.50/20	DB7.50/20	DB7.50/20	Con 20R	6-4 1/4x4 1/4	BL 607	A7 No	Tim SW251TW	w/2F	R 8.0	Opt	8x3 1/2x1 1/4	T	56
57	.....28SW6	4R 5-7 1/2	6380	Op	Op	.....	10000	P34x7	P34x7	Con 21R	6-4 1/4x4 1/4	BL 607	A7 No	Tim SW251TW	w/2F	R 8.0	Opt	8x3 1/2x1 1/4	T	57
5828SFD6	6-5-7 1/2	8900	Op	Op	11700	B8.25/20	DB8.25/20	DB8.25/20	Con 22R	6-4 1/4x4 1/4	Fu 5A53	U5 A2	Tim SD251W	2F	R 8.44	Opt	9x3x1 1/4	T	58
59	.....36SW6	4R 7 1/4-10	8800	Op	Op	.....	11500	P36x8	DP36x8	Con 21R	6-4 1/4x4 1/4	BL 607	A7 No	Tim SW310W	w/2F	R 8.0	Opt	10 1/2x3x3/4	T	59
60	.....36SFD6	6 7/8-10	12300	Op	Op	.....	14600	B9.00/22	DB9.00/22	Her HXB	6-5x6	BL 734	A4 A3	Tim SD320W	2F	R 8.15	Opt	10 1/2x3x3/4	T	60
61	.....40SW6	4R 10-15	11000	Op	Op	.....	13000	P38x9	DP38x9	Con 16H	6-4 1/4x5 1/4	BL 707	A7 No	Tim SW420W	w/2F	R 8.0	Opt	10 1/2x3x3/4	T	61
62	.....45SFD6	6-10-15	16900	Op	Op	.....	15400	B9.75/22	DB9.75/22	Her HXC	6-5 1/4x6	BL 734	A4 A3	Tim SD420W	2F	R 8.15	Opt	10 1/2x3x3/4	T	62
63	Day Elder 150	3-6	645	153	189	15000	5400	B6.50/20	DB6.50/20	Her HXC	6-3 1/2x5 1/2	BL 707	A4 A3	Tim SD75W	2F	R 8.0	Opt	10 1/2x3x3/4	T	63	
64	.....25R	4R 3-5	5290	205	234	29500	12000	B8.25/20	DB8.25/20	Her RXC	6-4 1/4x5 1/4	BL 534	U4 No	Tim SBT75	WF	R 8.56	Opt	10 1/2x3x3/4	T	64
65	.....345R	10R	6395	205	234	34500	12500	B9.00/20	DB9.00/20	Her RXC	6-4 1/4x5 1/4	BL 534	U4 No	Tim SWD210H	WF	R 8.56	Opt	10 1/2x3x3/4	T	65
66	.....402R	12R	7495	205	234	40200	14200	B9.75/20	DB9.75/20	Her RXC	6-4 1/4x5 1/4	BL 725	U5 No	Tim SWD410W	WF	R 9.0	Opt	10 1/2x3x3/4	T	66
67	Diamond T 801	4R 4	4140	189	219	21000	8500	P36x8	P36x8	Her YXC	6-4 1/4x5 1/4	BL 555	A7 No	Own	WF	R 8.50	Opt	10 1/2x3x3/4	T	67	
68	.....1201	4R 6	5600	180	210	28000	11000	P34x7	DP34x7	Her RXB	6-4 1/4x5 1/4	BL 60	A7 No	Tim SW200	WF	R 8.0	Opt	9x3 1/2x1 1/4	P	68
69	.....1602	4R 8	6400	175	210	36000	11700	P36x8	DP36x8	Her RXC	6-4 1/4x5 1/4	BL 60	A7 No	Tim SW320	WF	R 8.0	Opt	9x3 1/2x1 1/4	P	69
70	.....1603	4R 8	7500	184	224	36000	12500	P36x8	DP36x8	Wau GRB	6-5x5 1/2	BL 70	A7 No	Tim SW320	WF	R 8.0	Opt	9x3 1/2x1 1/4	P	70
71	Dodge.....CS80	2C 1 1/2-4	3995	221	221	30000	8350	B9.00/20	DB9.00/20	Own	6-3 1/2x5	Own	A4 No	Own	WF	H 7.13	48.2	10 1/2x3x3/4	H	71	
72	Brook.....C 3-8	4R 8	7800	195	220	40500	11400	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/4x5 1/4	BL 734	U4 A3	Tim Own	WF	R 5.7	120	8x3 1/2x1 1/4	C	72	
73	Fageol.....8-46HP	4R 8	8800	195	220	40500	13500	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/4x5 1/4	BL 734	U4 A3	Tim Own	WF	R 5.7	120	15x4x3/4	T	73	
74	.....8-46AL	4R 8	9000	232	232	56000	12600	B9.75/20	DB9.75/20	Wau 6RB	6-5x5 1/2	BL 734	U4 A3	Tim Own	WF	R 6.2	135	8 1/2x4x3/4	T	74
75	.....10-46RB	4R 10	10000	232	232	56000	14700	B9.75/20	DB9.75/20	Wau 6RB	6-5x5 1/2	BL 734	U4 A3	Tim Own	WF	R 6.2	135	15x4x3/4	T	75
76	.....10-46AL	4R 10	9000	232	232	56000	14700	B9.75/20	DB9.75/20	Wau 6RB	6-5x5 1/2	BL 734	U4 A3	Tim Own	WF	R 6.2	135	15x4x3/4	T	76
77	Federal.....22	4R 3	1745	172	198	15000	5000	B6.00/20	DB6.00/20	Her JXB	6-3 1/4x4 1/4	WG T9	U4 No	Cla B412	SF	R 6.38	40.8	8 1/2x2 1/2x1 1/4	TL	77	
78	.....21	2R 3	1495	198	198	13000	4500	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/4x4 1/4	Fu 5A38	U5 No	Cla B642	SF	R 6.38	40.8	8 1/2x2 1/2x1 1/4	TL	78
79	.....26	4R 3 1/2	297	192	218	24000	7700	B7.50/20	DB7.50/20	Wau 6MK	6-4 1/4x4 1/4	Cla R908	U5 No	Cla B642	SF	R 6.38	40.8	8 1/2x2 1/2x1 1/4	TL	79
80	.....37	4R 4 1/2	3595	192	218	24000	8100	B7.50/20	DB7.50/20	Wau 6MK	6-4 1/4x4 1/4	Cla R908	U5 No	Cla B642	SF	R 6.38	40.8	8 1/2x2 1/2x1 1/4	TL	80
81	.....T10SW	2R 7	3350	188	224	28000	9600	P34x7	DP34x7	Con 20R	6-4 1/4x4 1/4	Cla B710	A5 No	Tim 58200H	SF	H 7.8	50.6	7 1/2x3 1/2x1 1/4	C	81
82	FWD.....MX6	6-10-15	12255	200	Op	48000	17800	B13.50/20	B13.50/20	Wau RB	6-5x5 1/2	BL 714	A4 A2	W13 1stTW	2F	H 8.36	173	10x3x3/4	P	82	
83	.....X6	4F 6-10	7385	170	Op	36000	12000	B9.75/20	DB9.75/20	Wau SRK	6-4 1/4x5 1/4	Own U	A5 Op	Own X	BF	H 7.35	73	7x3x1 1/4	C	83
84	(6) Gen.Mo. T95	4R 9-11	7695	189	224	40000	3250	P34x7	DP34x7	Own 525	6-4 1/4x5 1/4	Own	U4 Op	Own	WF	R 8.50	53.3	9 1/4x4x3/4	L	84	
85	.....T130	4R 12-15	9490	189	224	50000	14545	B9.75/20	DB9.75/20	Own 616	6-3 1/2x5 1/2	Own	U4 A3	Own	WF	R 8.50	53.3	9 1/4x4x3/4	L	85
86	Hendrick'n.....25	4R 3-8	4500	189	224	21000	8100	B7.50/20	DB7.50/20	Own 616	6-3 1/2x5 1/2	Fu 5A38	U5 No	Own 985	SF	H 8.0	51.9	9 1/4x4x3/4	L	86	
87	.....25D	4R 3-8	3900	Op	Op	25000	8000	B8.25/20	DB8.25/20	Wau 6-110	6-4 1/4x4 1/4	Fu 5A38	U5 No	Own 985	SF	H 8.0	51.9	9 1/4x4x3/4	L	87
88	.....32D	4R 4-9	4900	Op	Op	25000	10500	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/4x4 1/4	Fu 5A38	U5 No	Own 2513X	SF	R 8.0	Opt	8x3x3/4	C	88
89	.....38D	4R 5-12	6600	Op	Op	38000	11200	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/4x5 1/4	Fu 5A53	U5 No	Own 2513X	SF	R 8.0	Opt	8x3x3/4	C	89
90	.....40D	4R 12	8000	Op	Op	40000	13200	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/4x5 1/4	Fu 5A53	U5 No	Eat 44000	2F	R 8.0	Opt	8x3x3/4	P	90
91	.....44D	4R 12	9000	Op	Op	40000	14000	B9.75/20	DB9.75/20	Wau 6RB	6-5x5 1/2	BL 70-7	A7 No	Eat 44000	2F	R 8.0	Opt	8x3x3/4	P	91
92	Hug.....9R	10R	10300	148	185	55500	15100	S36x8	S40x6	Bud 6FB	6-4 1/4x6	BL 714-703	U4 A3	W15 SD420AW	2F	R 10.3	139	9x4 1/2x3 1/4	H	92	
93	Ind. 98SBT-151	2C 6-10	1820	188	218	24000	8100	P32x6	DP32x6	Her JXC	6-3 1/4x4 1/4	BL 224	U4 No	Tim SBT151	WF	T 6.4	40.5	8 1/2x3x3/4	T	93	
94	.....95SW	4R 3-8	3450	188	218	24000	7500	B8.25/20	DB8.25/20	Her WXC	6-4 1/4x4 1/4	BL 3341	U4 Op	Tim SW151	WF	T 7.4	45.3	8 1/2x3x3/4	T	94
95	.....17ASW151	4R 3	3500	188	224	28000	8850	1/34x7	DP34x7	Her YXC	6-4 1/4x4 1/4	BL 624	U4 Op	Tim SBT251	SF	T 6.1	37.8	8 1/2x3x3/4	TL	95
96	.....17BSW251	2C 4	3900	188	224	28000	9500	P34x7	DP34x7	Her YXC	6-4 1/4x4 1/4	BL 624	U4 Op	Tim SW251	WF	T 6.2	38.1	8 1/2x3x3/4	TL	96
97	.....17WSW251	2C 4	3500	188	224	28000	8850	1/34x7	DP34x7	Her YXC	6-4 1/4x4 1/4	BL 624	U4 Op	Tim SW251	WF	T 6.2	38.1	8 1/2x3x3/4	TL	97
98	.....16X6	6 3	5650	170	.....	20000	8000	B7.00/20	DB7.00/20	Her RXB	6-4 1/4x5 1/4	BL	U4 U2	Wis	2F	H 4.6	.....	8x3x3/4	C	98
99	.....18X6	6 3 1/2	6650	170	.....	28000	10500	B8.25/20	DB8.25/20	Her RXC	6-4 1/4x5 1/4	BL	U4 A2	Wis	2F	H 7.83	10	8 1/2x3x3/4	C	99
100	.....20X6	6 4 1/2	8950	188	.....	36000	14000	B9.00/20	DB9.00/20	Her HXB	6-5 1/2x6	BL	U4 A2	Wis	2F	R 8.95	84	9x3x3/4	C	100
101	.....22X6	6 5 1/2	10000	188	.....	40000	16000	B9.75/20	DB9.75/20	Her HXD	6-5 1/2x6	BL	U4 A2	Wis	2F	R 8.95	84	9x3x3/4	C	101
102	Ken.....89SBT	2C 7	2380	188	224	25000	7350	P32x6	DP32x6	Her JXC	6-3 1/4x4 1/4	BL 234	U4 Op	Tim SBT151	SF	A 7.4	45.5	8x3x3/4	TL	102	
103	.....127SBT	2C 8	3450	188	224	26000	8000	B8.25/20	DB8.25/20	Her WXC2	6-4 1/4x4 1/4	BL 334	U4 Op	Tim SBT151	SF	A 7.4	45.5	8x3x3/4	TL	103
104	.....146SBT	2C 9	4250	188	224	33000	9000	B9.00/20	DB9.00/20	Bud K393	6-4 1/4x4 1/4	BL 334	U4 Op	Tim SBT251	SF	A 7.8	48	8x3x3/4	TL	104
105	.....186SDT	2C 10	6450	205	235	38000	10500	B9.00/20	DB9.00/20	Her YXC2	6-4 1/4x4 1/4	BL 1554	U4 A3	Tim Sdt310W	2F	H 7.33	104	9x3x3/4	T	105
106	.....241SDT	2C 10	6850	205	235	40500	11000	B9.00/20	DB9.00/20	Her RXB	6-4 1/4x5 1/4	BL 714	U4 A3	Tim Sdt310W	2F	H 7.33	104	9x3x3/4	T	106
107	.....346A	4R 10	8800	210	240	40500	13000	B9.75/20	DB9.75/20	Has 10	6-4 1/4x5 1/4	BL 714	U4 A3	Tim SW310W	WF	H 7.25	84	8x3x3/4	C	107
108	.....346B	4R 10	8550	210	240	40500	13000	B9.75/20	DB9.75/20	Has 10	6-4 1/4x5 1/4	BL 714	U4 A3	Tim SW310W	WF	H 7.25	84	8x3x3/4	C	108
109	.....346C	4R 10	9500	210	240	40500	14000	B9.75/20	DB9.75/20	Has 175	6-5x8	BL 714	U4 A3	Tim SW310W	WF	H 7.25	84	8x3x3/4	C	109
110	.....386C	4R 10	10200	210	240	50100	14500	B9.75/20	DB9.75/20	Has 175	6-5x8	BL 714	U4 A3	Tim SW410W	WF	H 7.60	103	8x3x3/4	C	110
111	La Fran-R. Q6	4R 9-12	11605	216	260	40000	14900	B10.50/20	DB10.50/20	Own 312B	12-4x5	BL 714	U4 No	Tim SWD410W	WF	.....	Opt	12x3 1/2x1 1/4	L	111
112	Le Moon(9) 701	4R 5-6	4475	187	199	25500	8500	B8.25/20	DB8.25/20	Lyc AEC	8-3 1/4x4 1/4	Fu VUOG	U5 No	T 63703-97H	WF	R 6.20	43.8	7x4x4 1/4	B	112	
113	.....801	4R 6-7	5100	187	199	325														

Line Number	ENGINE DETAILS										FUEL SYST.	ELEC. TRICAL	FRONT AXLE	BRAKES	BODY MOUNT-ING DATA		SPRINGS		Auxiliary Type														
	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	MAIN BEARINGS		Oiling System Type					Governor Make	Carburetors Make	Fuel Feed	Ignition System Make		Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	Make and Model	Steering Gear Make	SERVICE		Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear
								Piston Material	Number and Diameter																	Length	Make, Location, Operation							Lining Area	Drum Location, Type
1428	4.6	308	45.9	118-2600	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F211	Ros	L41HV	660	a	TD	Opt	Opt	34	40x2 1/2	54x3	N			
2500	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
3251	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
4315	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
5381	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
6398	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
7411	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
8411	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
9462	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
10462	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
11517	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
12517	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
13411	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
14677	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
15462	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
16462	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
17282	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
18298	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
19361	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
20428	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
21478	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
22707	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
23779	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
24228	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
25282	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
26339	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
27383	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
28353	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
29428	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
30478	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
31529	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
32707	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
33779	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
34339	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
35282	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
36282	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
37339	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
38383	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
39383	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
40453	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
41453	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3	N			
42500	4.6	340	48.6	138-2500	H	G	A	7-2 1/2	13	FP	Opt	Zen	M	DR	DR	P.L.I	Pe	Spl	Wls F311	Ros	L41HV	768	a	TD	Opt	Opt	34	46x3	54x3				

Line Number	MAKE AND MODEL	Wheels Driven—6-Wheelers	GENERAL See Keynoter					TIRE SIZE		MAJOR UNITS							FRAME					
			Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. Stripped	Front	Rear	ENGINE		TRANSMISSION		REAR AXLE			Side Rail Dimensions	Type			
											Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type			Drive and Torque	GEAR RATIOS	
																					In High	In Low
1	Mack	BX	4R 8-15	7950	178	207	12000	B8.25/22	DB8.25/22	Ow'n CF	6-4 1/2 x 5 1/2	Ow'n BX	U 4	No	Ow'n BX6	2F	A 6.53	46.0	9.14	13 1/2 x 4 1/2	C	
2		BQ	4R 8-15	9350	224	248	15000	B9.75/22	DB9.75/22	Ow'n BQ	6-4 1/2 x 5 1/2	Ow'n AC	A 4	No	Ow'n BX6	2F	A 6.54	41.9	10.1	13 1/2 x 4 1/2	C	
3		AC	4R 8-15	8500	217	257	14550	P40x8	DP40x8	Ow'n BQ	6-4 1/2 x 5 1/2	Ow'n AC	J 4	No	Ow'n AC	CD	R 9.26	59.4	8.8	13 1/2 x 4 1/2	C	
4		AK	4R 8-15	9000	217	257	15900	B9.75/22	DB9.75/22	Ow'n BQ	6-4 1/2 x 5 1/2	Ow'n AC	A 4	No	Ow'n AK6	2F	A 7.46	47.8	8.8	13 1/2 x 4 1/2	C	
5		AP	4R 8-15	10500	217	257	14850	P40x8	DP40x8	Ow'n AP	6-5x6	Ow'n AC	J 4	No	Ow'n AC	CD	R 9.26	59.4	8.8	13 1/2 x 4 1/2	C	
6		AP	4R 8-15	11000	217	257	16400	B9.75/22	DB9.75/22	Ow'n AP	6-5x6	Ow'n AC	A 4	No	Ow'n AK6	2F	A 7.46	47.8	8.8	13 1/2 x 4 1/2	C	
7	Mar.-Her.	TH310A-6	10	10000	193	229	14070	B9.75/22	DB9.75/22	Her RXC	6-4 1/2 x 5 1/2	Fu 5A530	U 5	A	Ow'n-Wis	2F	R 9.11	163.	8.4	13 1/2 x 4 1/2	P	
8		(13)TH315	6 12-13	12500	198	234	15420	B9.75/22	DB9.75/22	Her HXC	6-5x6	BL 724	U 4	A	Ow'n-Wis	2F	R 9.11	163.	8.4	13 1/2 x 4 1/2	P	
9		(13)TH320	6 15-18	14500	225	255	18450	B10.50/24	DB10.50/24	Her HXC	6-5 1/2 x 6	BL 724	U 4	A	Ow'n-Wis	2F	R 9.11	188.	10.3	13 1/2 x 4 1/2	P	
10	Moreland	RA15	2C 3	1550	153	Op	15000	B6.50/20	DB6.50/20	Her JXC	6-3 1/2 x 4 1/2	BL 224	U 4	No	Tim SBT75	SF	R 5.66	35.0	7.7	12 1/2 x 4 1/2	T	
11		RA20	2C 5	1981	149	Op	20000	B7.50/20	DB7.50/20	Her JXC	6-3 1/2 x 4 1/2	BL 224	U 4	No	Tim SBT151	SF	R 6.17	38.2	7.7	12 1/2 x 4 1/2	T	
12		BD21M	4C 5	3534	184	Op	21000	B8.25/20	DB8.25/20	Her WXC3	6-4 1/2 x 4 1/2	BL 334	U 4	No	Tim 64800	WF	R 6.40	39.6	9.1	13 1/2 x 4 1/2	T	
13		ED25M	4C 7	4067	184	Op	25000	B8.25/20	DB8.25/20	Her WXC3	6-4 1/2 x 4 1/2	BL 334	U 4	No	Tim 65000	W	R 7.50	46.0	9.1	13 1/2 x 4 1/2	T	
14		HD34M	4C 10	5869	220	Op	34000	B9.00/20	DB9.00/20	Her RXB	6-4 1/2 x 5 1/2	BL 524	U 4	No	Tim 65720	W	R 8.50	62.0	9.1	13 1/2 x 4 1/2	T	
15		TD34	4C 10	7607	221	Op	34000	B9.75/20	DB9.75/20	Con 16H	6-4 1/2 x 5 1/2	BL 724	U 4	No	Tim 68720W	W	R 8.76	62.0	11.3	13 1/2 x 4 1/2	T	
16	Sterling	FBI152	2R 8 1/2	4580	174	204	30400	B9.00/20	DB9.00/20	Wau 6-110	6-4x4 1/2	Ow'n UC7	U 5	No	Ow'n	BF	R 7.8	55.5	10.3	13 1/2 x 4 1/2	L	
17		FDT152	2R 8 1/2	4705	174	204	30400	B9.00/20	DB9.00/20	Wau 6-110	6-4x4 1/2	Ow'n UC7	U 5	No	Ow'n	BF	R 9.0	52.7	10.3	13 1/2 x 4 1/2	L	
18		FDS180	4R 8-10	8665	158	Op	36000	P40x8	DP40x8	Wau AB	6-4 1/2 x 5 1/2	Ow'n UC8	U 4	A	3	Tim 310	2F	R 9.1	113.	15.3	13 1/2 x 4 1/2	L
19		FDS200	4R 10-12	9130	159	Op	40000	P40x8	DP40x8	Wau RB	6-5x5 1/2	Ow'n UC8	U 4	A	3	Tim 410	2F	R 9.1	113.	15.3	13 1/2 x 4 1/2	L
20		FCS210	4R 15-18	10175	Op	Op	42000	P40x8	DP40x8	Wau RB	6-5x5 1/2	Ow'n UC8	U 4	A	3	Ow'n	CD	R 9.5	59.6	15.3	13 1/2 x 4 1/2	L
21		FDT200	2R 12-12 1/2	7670	178	208	40000	P40x8	DP40x8	Wau 6-125	6-4 1/2 x 5 1/2	Ow'n UC	U 4	Op	Ow'n	CD	R 8.85	58.8	12.3	13 1/2 x 4 1/2	L	
22		FDT250	2R 16-16 1/2	8856	186	216	50000	P42x8	DP42x8	Wau RB	6-5x5 1/2	Ow'n UC8	U 4	Op	Ow'n	CD	R 8.85	55.5	15.3	13 1/2 x 4 1/2	L	
23		FCT180	2R 10-10 1/2	7265	178	208	36000	P38x8	DP38x8	Wau SRL	6-4 1/2 x 5 1/2	Ow'n UC	U 4	Op	Ow'n	CD	R 8.2	54.5	12.3	13 1/2 x 4 1/2	L	
24		FCT200	2R 12-12 1/2	7685	178	208	40000	P40x8	DP40x8	Wau 6-125	6-4 1/2 x 5 1/2	Ow'n UC	U 4	Op	Ow'n	CD	R 9.3	61.8	12.3	13 1/2 x 4 1/2	L	
25	Ward	440TC	15	11000	240	246	44000	B9.75/22	DB9.75/22	Cu. Die. HA	6-4 1/2 x 6	BL 735	A 5	No	Tim SBT420W	WF	R 6.42	40.4	14.3	13 1/2 x 4 1/2	T	
26	LaFr.	440TR	15	9350	240	246	44000	B9.75/22	DB9.75/22	Wau RB	6-5x5 1/2	BL 735	A 5	No	Tim SBT420W	WF	R 6.42	40.4	14.3	13 1/2 x 4 1/2	T	
27		340TM	7 1/2	4700	204	230	28000	B8.25/20	DB8.25/20	Wau MK	6-4 1/2 x 4 1/2	BL 5352	U 5	No	Tim SBT251H	SF	T Opt	Opt	12.3	13 1/2 x 4 1/2	T	
28		400T5	12	7100	203	241	40000	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/2 x 5 1/2	BL 5352	U 5	No	Tim SWT320W	WF	R 8.5	65.5	14.3	13 1/2 x 4 1/2	T	
29	Wht.	630SW200	4R 5-6	•••	193	205	10000	B8.25/20	DB8.25/20	Ow'n A7	6-4 1/2 x 5 1/2	Ow'n 4B	U 4	No	Tim SW200H	WF	R 6.75	44.2	2.8	13 1/2 x 4 1/2	C	
30		642SW320	4R 7-9	•••	198	210	12670	B9.00/20	DB9.00/20	Ow'n 1AB	6-4 1/2 x 5 1/2	Ow'n 7B	U 4	No	TimSW310W	WF	R 8.5	55.6	8.8	13 1/2 x 4 1/2	C	
31		643SW420	4R 9-11	•••	198	215	14400	P40x8	DP40x8	Ow'n 1AB	6-4 1/2 x 5 1/2	Ow'n 7B	U 4	No	TimSW410W	WF	R 10.2	69.1	18.4	13 1/2 x 4 1/2	C	

The Tale of the Rocky Trail the Trucking Code Had to Travel

(CONTINUED FROM PAGE 13)

Labor Advisors agreed to a provision that overtime for employees on vehicles would apply after 48 hours in any one week, with the further promise that studies would be made to determine the desirability and feasibility of shortening the working day of these employees.

There seems to be no dispute over the agreement on a base week of 48-hours for employees other than drivers or helpers on vehicles but including dispatchers and rate clerks, averaged over three weeks with a maximum of 54 hours in any one week, and a limitation of 12 out of 14 days. The overtime provision agreed upon was time and one-third for all time over eight hours in any one day or 48 hours in any week. Watchmen are limited to a 56-hour week and six out of seven days, while clerical or office help is limited to a 40-hour week and six out of seven days and allowed no averaging.

A lively tussle ensued over the section of the tentative code permitting longer hours, subject to Code Authority approval, to meet seasonal and emergency demands. The outcome was a clarification of the section which was entirely in order. It limits the number of additional hours that employees may be worked. It stipulates that the seasonal or emergency period shall be limited to three consecutive months.

That constituted the difficulties presented by the hours of work provisions of the Industrial Relations section of the code.

The wage demands made by labor

were subjected to weeks of wrangling. While increasing the minimum at both ends of the range based on population of cities, labor at one time endeavored to take Texas and other states out of the South and put them in the North classification. Even Assistant Secretary of Labor McGrady was called in to participate in the settlement of the dispute. Eventually agreements as shown in the code were reached.

The collective bargaining paragraph under General Labor Provisions did not seem comprehensive enough, so labor demanded that agreements arrived at between representative employers and employees be made binding on all members of the Industry in the division or area affected on approval by the Administrator after such notice and hearing as he may prescribe and provided the wage and hour provisions of the code are adhered to.

The farsightedness of organized labor could be discerned when one member of the staff of the Labor Advisory Board objected to voluntary trade agreements to better labor conditions on the ground that it would affect employees' rights under collective bargaining. He made the statement that no employer or groups of employers should increase the wages of employees except through the process of collective bargaining. (One can be pardoned if one sees in this an attempt by organized labor to get all of the credit for bettering labor conditions. It is fairly representative of some of the intelligent proposals that the Code Contact Committee of the A.T.A. has had to contend with.)

Typical of the labor attitude was the Labor Advisory Board's desire to give joint employer and employee boards.

entire jurisdiction over that portion of the code dealing with Industrial Relations. The A.T.A. Code Contact group successfully resisted this move with the argument that since employees had no responsibility under the code and since employers had nothing but responsibility there was no logic in the employers' relinquishing the jurisdiction which was rightly theirs.

Considerable time was also spent in discussing a provision for an Industrial Relations Board to deal with labor matters in dispute between employers and employees and with violations of the code's labor stipulations. The plans discussed was to set up a National Industrial Relations Board of equal numbers of employer and employee representatives—three of each. This board would in turn set up state, regional and divisional boards, when necessary, which would be similarly constituted. However, administration of all matters under the heading of industrial relations would remain in the hands of the Code Authority.

Rates and Tariffs presented difficulties peculiarly their own. The trade agreement provisions in the printed code which were the subject of the Nov. 16 and 17 hearing granted the majority the right to impose through a rate agreement a rate on the minority. This reversed the deplorable pre-code practice whereby the minority, by chiseling practices, set the rate and compelled the majority to conform in order to meet the competition.

The code provision evidently seemed loose to the National Recovery Administration because in a redraft prepared after the hearing it proposed to tighten up the provision on the premise that trade agreements would not be arrived

Line Number	ENGINE DETAILS										SYST. FUEL	ELEC-TRICAL	FRONT AXLE	BRAKES			BODY MOUNT-ING DATA			SPRINGS								
	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS					Steering Gear Make	SERVICE			Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type					
									Number and Diameter	Length					Make, Location Type, Operation	Lining Area	Drum Material											
																								Oiling System Type	Governor Make	Carburetors Make	Fuel Feed	Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make	Universal Make	Make and Model
1468	4.6	292	13.4	108-2400	L	G	C	7-3	12	FP	Pe	Str	MRB	NE	P.Ow	Ow	Spl	Ow BX	Ow	O6IA	974a	FX	192	109	33 1/4	54 1/4 x 3	48x3 1/4	N
2611	5.7	398	54.2	128-2300	L	G	C	4-3 1/2	10 1/2	FP	Ow	Str	MRB	NE	P.Ow	Ow	Spl	Ow BQ	Ros	O6IA	902a	FX	192	111	33 1/4	50x3 1/4	48x3 1/4	N
3611	5.7	398	54.2	128-2300	L	G	C	4-3 1/2	10 1/2	FP	Ow	Str	MRB	NE	P.Ow	Ow	Spl	Ow AC	Ros	O6IA	930a	FX	180	109	37 1/4	48x3 1/4	52x4	N
4611	5.7	398	54.2	128-2300	L	G	C	4-3 1/2	10 1/2	FP	Ow	Str	MRB	NE	P.Ow	Ow	Spl	Ow AK	Ros	O6IA	1044a	FX	180	109	38 1/4	48x3 1/4	52x4	N
5706	4.4	427	60.0	138-1900	L	G	C	4-3 1/2	11 1/2	FP	Ow	Str	MRB	NE	P.Ow	Ow	Spl	Ow AK	Ros	O6IA	930a	FX	180	109	38 1/4	48x3 1/4	52x4	N
6706	4.4	427	60.0	138-1900	L	G	C	4-3 1/2	11 1/2	FP	Ow	Str	MRB	NE	P.Ow	Ow	Spl	Ow AK	Ros	O6IA	1044a	FX	180	109	38 1/4	48x3 1/4	52x4	N
7529	4.9	350	51.3	114-2200	L	G	A	7-3	14	PC	Ha	Zen	MDR	DR	D.Fu	Yo	Blo	Ow-Wls	Ros	W6IA/61A	760a	FD	152	102	34	44x3	46x4	N
8707	4.5	460	60.0	148-2000	L	G	A	7-3 1/2	17	PC	Ha	Zen	MDR	DR	d.BL	Yo	Blo	Ow-Wls	Ros	W6IA/61A	760a	FD	174	102	34	44x3	46x4	N
9779	4.5	508	66.2	164-2000	L	G	A	7-3 1/2	17	PC	Ha	Zen	MDR	DR	d.BL	Yo	Blo	Ow-Wls	Ros	W6IA/61A	760a	2FD	223	127	34	52x4	46x4	N
10282	5.0	176	33.8	73-2800	L	G	C	7-2 1/2	10 1/2	PC	No	Zen	MAL	AL	P.BL	Lo	Cle	Tim 30000H	Ros	L6IH	412a	TD	168	71	34	40x2 1/2	44x3	N
11282	5.0	176	33.8	73-2800	L	G	C	7-2 1/2	10 1/2	PC	No	Zen	MAL	AL	P.BL	Lo	Cle	Tim 31000H	Ros	L6IH	570a	TD	168	67	34	40x2 1/2	52x4	N
12383	4.4	262	43.3	92-2400	L	G	C	7-2 1/2	13 1/2	PC	No	Zen	MAL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L6IH	578a	TD	192	101	34	40x2 1/2	42x3 1/2	N
13383	4.4	262	43.3	92-2400	L	G	C	7-2 1/2	13 1/2	PC	No	Zen	MAL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L6IH	661a	TD	192	101	34	41 1/2 x 2 1/2	43 1/2 x 3 1/2	N
14501	4.9	330	48.6	110-2200	L	G	A	7-3	12 1/2	PC	No	Zen	MAL	AL	P.BL	Lo	Cle	Tim26450TW	Ros	W6IA	898a	TD	216	113	34	42x3	48x3 1/4	N
15611	4.5	334	54.1	127-2300	L	G	A	7-3	12 1/2	PC	No	Zen	MAL	AL	d.BL	Lo	Cle	Tim 27050W	Ros	W6IA	960a	TD	Opt	Opt	38	44x3	48x3 1/4	N
16358	5.0	254	38.5	110-2800	F	G	A	7-2 1/2	12 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 35000N	Ros	L4IHV	596a	CX	192	91	34	42x2 1/2	57x4	N
17358	5.0	254	38.5	110-2800	F	G	A	7-2 1/2	12 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 35000N	Ros	L4IHV	596a	CX	192	91	34	42x2 1/2	57x4	N
18549	4.6	330	48.6	99-2000	L	G	C	4-3 1/2	11 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 26450N	Ros	W6IA	576a	CX	Opt	88	34	48x3	58x4	N
19677	4.4	440	60.0	125-2000	L	G	A	4-3 1/2	11 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 27450N	Ros	W6IA	792a	CX	Opt	89	34	48x3	58x4	N
20677	4.4	440	60.0	125-2000	L	G	A	4-3 1/2	11 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 27450N	Ros	W6IA	792a	CD	Opt	Opt	34	48x3	60x3 1/4	N
21462	5.5	324	45.9	102-2400	L	G	A	7-3	13 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 26450N	Ros	O4IA	792a	CX	192	94	34	48x3	(10)	N
22677	4.4	440	60.0	125-2000	L	G	A	4-3 1/2	11 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 27450N	Ros	O4IA	792a	CX	192	93	34	48x3	(10)	N
23462	4.5	300	45.9	102-2400	L	G	C	7-3	13 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 26450N	Ros	O4IA	1152a	JX	192	94	34	48x3	(10)	N
24462	5.5	324	45.9	125-2400	F	G	A	7-3	13 1/2	CC	Ha	Zen	MDR	DR	D.Ow	Mo	Spl	Tim 26450N	Ros	O4IA	1152a	JX	192	94	34	48x3	(10)	N
25672	17.0	420	57.0	125-1800	H	G	C	7-3 1/2	16 1/2	CC	En	No	MCI	LN	d.BL	Pe	Spl	Tim 27452W	Ros	W6IA	1012a	TD	255	148 1/4	34	42x3	46x4	N
26677	5.5	465	60.0	145-2000	L	G	C	4-3 1/2	11 1/2	FP	Wa	Zen	VDR	LN	d.BL	Pe	Spl	Tim 27452W	Ros	W6IA	1012a	TD	255	148 1/4	34	42x3	46x4	N
27381	4.6	242	40.8	85-2500	L	G	C	7-2 1/2	12 1/2	FP	Wa	Zen	MDR	DR	P.BL	Pe	Spl	Tim 35000H	Ros	L6IHV	651a	TD	192	115	34	42x3	52x4	N
28462	4.6	324	45.9	125-2600	F	G	A	7-3	13 1/2	FP	Wa	Zen	MDR	DR	P.BL	Pe	Spl	Tim26450TW	Ros	W6IA	902a	TD	192	116 1/4	34	42x3	46x4	N
29434	4.9	275	42.0	105-2100	H	C	C	8 1/2	13 1/2	FP	Ow	Zen	MDR	DR	P.Ow	Ow	Spl	Ow 6D	Ros	L4IHV	514a	CI	194 1/4	109 1/4	34 1/4	42x3	51 1/4 x 4	N
30519	4.0	333	45.9	118-2100	H	C	C	8 1/2	15 1/2	FP	Ow	Zen	ELN	LN	d.Ow	Ow	Spl	Ow 12D	Ros	W6IA	833a	CI	194 1/4	109 1/4	34 1/4	42x3	42x4	N
31519	4.0	333	45.9	118-2100	H	C	C	8 1/2	15 1/2	FP	Ow	Zen	ELN	LN	d.Ow	Ow	Spl	Ow 12D	Ros	W6IA	833a	CI	194 1/4	109 1/4	34 1/4	42x3	42x4	N

at except under compulsion. So NRA in its proposal stipulated that if within 60 days after approval of the code no trade agreements were presented by any natural division or area, the State or Regional Code Authority should be informed of that fact by the Divisional Code Authority having jurisdiction and thereafter the matter would be open for any group of operators within a division to file a request with the Regional or State Code Authority for rates to be promulgated for that division. In this event the State or Regional Code Authority would write the agreement and set the rates.

After this proposal matters went along peacefully for quite a while. But after the first of the year came a change in personnel at NRA headquarters and with the change came new theories and new proposals and, consequently, further delays. One of the first decisions was that the rate matter ought to be taken up with the Coordinator of Transportation's office. The outcome of the consultation was an effort to modify the code provision regarding rate agreements of the majority being binding upon all operators in a natural division or area, by providing for individual filings and trade agreements on rates which would be binding upon those who assented to them. Outsiders, however, would have to meet the code provision calling for rates based on the reasonable cost of the service performed.

Discussions were still in progress when confusion broke out in earnest. Congressman Rayburn introduced his bill to regulate trucks and buses in interstate commerce. Instead of being confronted with strictly code problems both NRA and the A.T.A. faced an en-

tirely different situation. The hearing on the Rayburn bill developed into a code versus federal regulation debate. A.T.A. was all for self-regulation under the code. NRA, with congressional action impending, was up a tree. Decidedly so, in fact, because the day after the Rayburn bill was introduced, General Johnson announced that no trucking code would be approved until Congress had disposed of the federal regulation bill.

After a few days of the hearing it must have become noticeable that the case for federal regulation was not cut and dried because NRA resumed consideration of the code. At the same time NRA expressed the feeling that the rate agreement features would not get by in view of the opposition that had come in from various sources—shippers, farmers, etc.

The final upshot was the preparation of a provision for filing of individual schedules of minimum rates and tariffs. It was further provided that the cost of service performed must be computed according to a cost formula to be worked out by the National Code Authority with the approval of the Administrator. Also that if State or Regional Code Authorities found instances where the cost formula was not being met, they could prescribe rates and tariffs which would meet it.

So much for the obstacles presented by rates and tariffs.

To prove that in the effort to slick the code into presentable shape a fine-toothed comb has been used—and used unsparingly—it can be said that the remaining articles—Administration, Trade Practice Rules and Registration—of the code drawn up under A. T. A. auspices were not slighted.

The administrative provisions had to be drafted in detail and then redrafted, and the procedure charted to show exactly how it would work. They had to be clarified to provide autonomy on questions affecting natural divisions of the industry and to retain the mechanism for uniform action on matters affecting several or all.

There seemed to be a conviction that under trade practice rules there ought to be a provision requiring every truck for-hire to carry a receipt giving the names of the consignee and consignor, a description of the shipment and date, where it was picked up and its destination. The purpose of this would be to facilitate the detection of stolen goods. Moreover, the Code Authority would be empowered to grant exceptions to this rule, as in the case of dump truck operators, for instance, who, obviously would be unnecessarily inconvenienced if they had to make out receipts every time they left an excavation job with a load.

There was fear, too, that the Code Authorities, by virtue of the power vested in them, might assume a legislative instead of simply an administrative function in determining unfair trade practices. A supporting example cited was that it might be decided in a particular instance that a six-wheel truck represented an unfair practice. To prevent this it was felt that the State and Regional Code Authorities should have authority to make recommendations only, and that the Administrator should approve or disapprove agreements on trade practice rules.

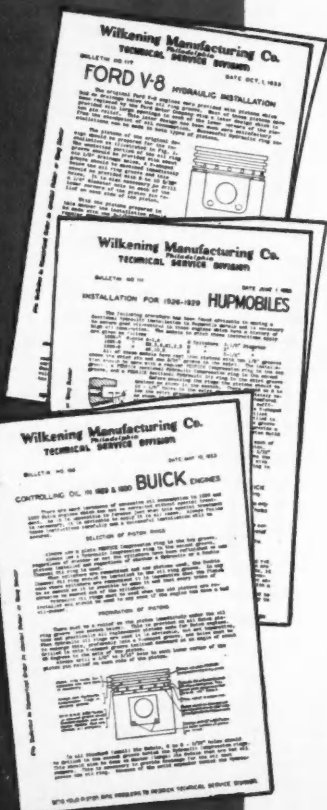
And there you have the good and sufficient reasons why, despite months of unceasing effort, the code was not sooner given to the industry.

The Pedrick Technical Service

This manual covers passenger car field in general



Special bulletins issued from time to time cover special cases



Showing how to select and install easily the correct ring for every job

Wilkening Manufacturing Co.
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No line of piston rings has ever been produced to equal the PEDRICK line for completeness and ability to meet all piston ring problems. PEDRICK provides the correct type or combination of types for every conceivable condition in the automotive field.



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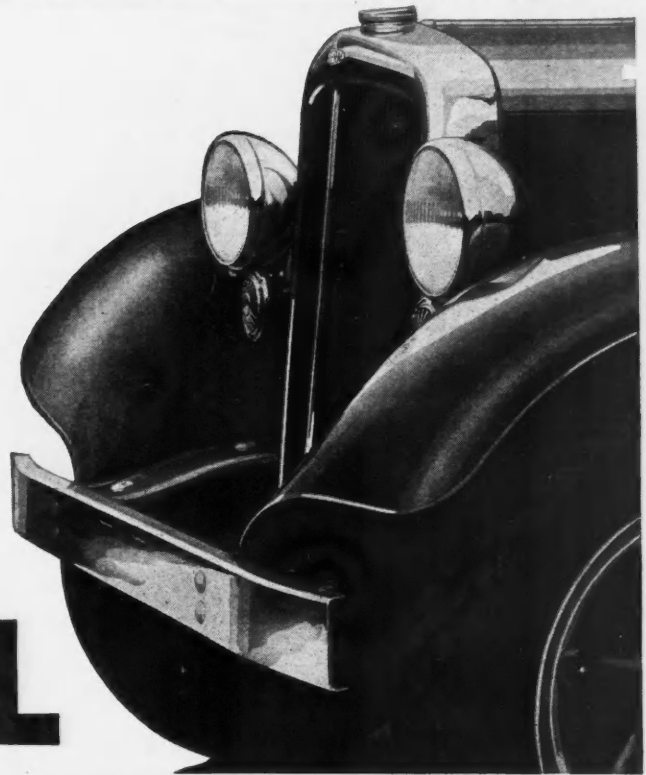


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Finest Quality Truck Construction Plus New Modern Style At Popular Prices

Federal trucks embody the superior performance, dependability and long life that is expected only from motor trucks of the highest quality. Yet their cost is but slightly more than some of the cheaper trucks of lighter construction.

The quality and reserve strength of Federal trucks are evident in every part and unit. Each model has a powerful, 6-cylinder, 7-bearing, heavy-duty truck engine. Frames are heavy fish-belly type (8½" deep on the 1½-ton model). Full floating rear axles are used exclusively. All other parts are designed and built for severest truck service.

The new Federal models are smart, sleek-looking vehicles that any operator would be proud to own. The new modern truck style created by Federal is featured by a handsome, sloping, V-type, chrome-plated radiator—chrome-plated headlamps, twin horns and front bumper—long streamline hood and cowl—wide sweeping fenders and low chassis lines.


Compare the new Federal models point by point with cheaper trucks and judge for yourself if they are not worth the slight difference in price. Compare them, too, with the more expensive trucks and see what exceptional value they offer.

DEALERS: Truck sales increased 48 per cent last year and are still improving. Now is the time to consider the truck business. The salability of the Federal line and the opportunity offered by a direct connection with this Company should interest you. Let us give you complete details.

FEDERAL MOTOR TRUCK COMPANY
DETROIT, MICHIGAN
CANADIAN FACTORY—WINDSOR, ONT.



A Tight Connection All the Time



TRADEMARK
NOC-OUT
THE
HOSE CLAMP
WITH THE THUMBSCREW

Standard equipment hose clamp of the automotive and airplane industry. Your jobber has them.

4307 W. 24TH PL. **WITTEK**
CHICAGO, ILL. MFG. CO.

Remember this

Try out every single make of truck on the market and you will not find ONE that can equal the performance of a Marmon-Herrington All-Wheel-Drive. Write today and find out why.

MARMON-HERRINGTON
INDIANAPOLIS, INDIANA
21 Models 1 1/2 Tons Up New Low Prices

There is No Public Demand for Regulation

(CONTINUED FROM PAGE 21)

with their enormous financial influence, can bring all other transportation under the same regulations to which they are subject, then they are bound to control. In short, if you pass this legislation you bring us back a railroad monopoly more complete and absolute than we have ever known. Do you want to do that?

Anything like monopoly in highway transportation is impossible unless you bring it about by the very kind of legislation you now have before you. There are three and a half million trucks in the country. No business is more keenly competitive. None is better fortified against the effort to establish monopoly. But it is in your hand; I may say yours

are the only hands strong enough to bring it under monopolistic rule.

The railroad program is plain enough. It is, first, to get state legislation which will impose impossible operating conditions and excessive taxes on trucks; and second, to secure federal laws of precisely the kind you are now considering. I wish time would permit me to recount the story of the titanic drive that the railroad lobbies put on last winter in 43 states, in the effort to cripple highway transportation; to entangle it in a maze of impossible regulations, conditions, taxes and penalties; literally, to hamstring it. They were out to drive independent commercial transportation off the highways, in order that later they might take over this business as subsidiary to their own operations.

I may say frankly that I don't think the railroads were very successful with the state legislatures. Nearly everywhere public opinion was aroused, the business community resented the performance, and of the several thousand bills that were urged by the railroads, only a very few, and these mostly innocuous, became law. But because of their failure in the states, the railroads now deem it more necessary to succeed here; to induce the federal government to play their game.

Let me remind you that the railroads made a long and bitter fight against the imposition on them of the very kind of regulation that they now ask you to impose on the highway.

When our country was forced into the World War, about the first thing we learned was that our transportation system was utterly inadequate. The government had to take over the roads and guarantee both their solvency and their physical operations. After the war came a decade of good times during which they might have been expected to recoup their finances. But did they? The answer is that they so frittered away their earnings of the good years that when depression came we found them with one hand reaching into the

LUCE
MASTERCRAFT
TRUCK BODIES

Production and Custom Built Body Equipment Vocationally Designed

LUCE MANUFACTURING CO.
Lansing, Michigan

treasury for R. F. C. funds to save them from bankruptcy, and with the other gesturing for mercy and for higher rates, at the hands of the Interstate Commerce Commission.

The whole history of American railroad policy is a history of bad guesses and unwise programs.

The first chance American business had to shake off the shackles of railroad transportation monopoly, came with the motor vehicle. It is the passenger automobile, rather than the truck, that has hurt rail revenues; but it would be useless to attack the passenger car's rights on the road. There are 25,000,000 passenger cars. They have too many friends. So, the fight has been centered on the truck.

Among the thousands of highway "regulation" measures urged in the legislatures last winter by the railroads, nearly all were deliberately designed to hamper highway traffic. Under pretense of saving the roads, or of making them safe, or of raising public revenue, was thinly concealed the real motive—the destructive purpose. The Reyburn bill represents that same purpose.

If the railroads at length succeed at state capitals and here, they will cripple the highway's usefulness, just as surely as, a few decades ago, they destroyed the canal system and drove the steamboats off the rivers. Thus removing the one competitor that remains to menace their control, they will rivet their monopoly tighter than ever.

1/2 TON **6 TONS**

Weigh the Facts

★ When a 1 1/2-ton truck hauls 6 tons, easily, swiftly, and without overloading, there's bound to be a reduction in delivery costs. Your straight truck can haul three times its present load—by pulling the extra weight on a Fruehauf Semi-Trailer. Ask for details.

FRUEHAUF TRAILERS
"Engineered Transportation"

FRUEHAUF TRAILER COMPANY
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Your driver halts
a **RHINO** on a rampage
at every stop signal



WHEN YOU VISUALIZE
YOU REALIZE THE
IMPORTANCE OF USING

JUNGLE inhabitants know better than to linger long in the path of a charging rhinoceros. Here is a quarrelsome quadruped with the speed to go places and the strength to do things in a big way. Yet . . . with his foot pedal your driver must control a mechanical beast that can easily out-distance or outdamage the bulkiest rhino that ever made a native run for his life.

Translate the stopping of a motor vehicle into terms of what such an accomplishment actually represents. Then you'll appreciate the importance of Thermoid F-M-L Brake Lining. Thermoid gives immediate soft-pedal action and maintains it throughout life. Thermoid won't fade out . . . won't grab in damp weather . . . won't score brake drums. It is road conditioned in the factory for all motor vehicles.

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Factories and Main Offices

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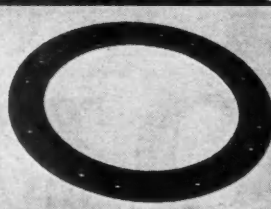
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BRAKE BLOCKS**



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Controlled Vacuum

POWER BRAKES

*mean
everything*

YOU want and need power brakes for your truck, bus or trailer equipment.

You want and need *everything* they provide.

That means you want and need Bendix B-K Controlled Vacuum Power Brakes, because Bendix *alone* gives you everything Power Brakes have to offer.

In many states today the kind of brake performance which Bendix provides, is demanded by law. It is bound to be demanded universally before long . . . because it ought to be.

Bendix Power Brakes keep your trucks out of trouble—and are powerful evidence of your fullest precaution. They make safe driving easier. They conserve your drivers' strength and nerves and temper.

For all these reasons, and more, 96% of all power brake equipped vehicles are Bendix equipped. Write for full details.

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401 Bendix Drive South Bend, Indiana
(Subsidiary of Bendix Aviation Corporation)

- 100% Power Operation, Fully Controlled
- Least Weight Added
- Fewest Added Parts
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- Practically No Maintenance
- Instant Remote Control
- All Emergency Features of Train Operation
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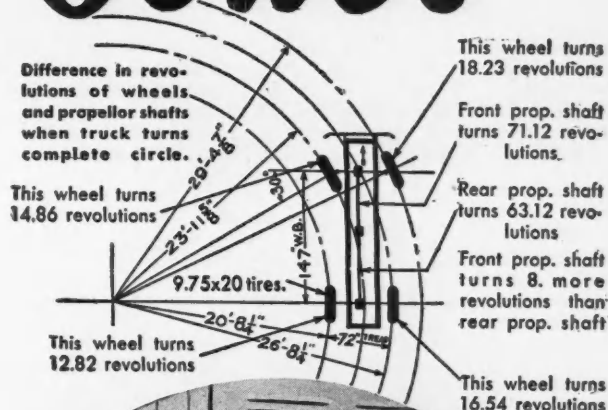
BENDIX PRODUCTS

Controlled Power

One of the units which helps to control the power of the FWD is the center differential. Here is illustrated why a center differential is necessary to the successful operation of a four-wheel-drive truck.

The necessity of a center differential in a four-wheel-drive truck can be easily demonstrated. Run the truck in a semi-circle with the differential locked (this eliminates differential action) and then jack up one of the wheels. The strains that are built up because of the unequal distance traveled by the front and rear axles will cause the wheel to kick back as much as eight inches. When the truck is driven in a circle with free differential action between the axles, the wheels may be jacked up and no strain on the driving mechanism will be shown.

The power in the FWD is controlled. No slippage of the wheels when turning corners. No strain on the mechanism. The FWD center differential, through which the power is fed from the transmission to both axles, does away with the wear and strain which would otherwise take place. A center differential in a four-wheel-drive truck is just as necessary and operates on the same principle as the differential in the rear axle of your pleasure car . . . When the condition of the



road is so unusual that one of the axles loses traction, it is only necessary to flip a lever, which is operated from the driver's seat, to give positive drive to both axles . . . Check and mail the coupon below for booklets listed.

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Canadian Factory . . . KITCHENER, ONTARIO

FWD TRUCKS
BACKED BY NATION-WIDE SERVICE

THE FOUR WHEEL DRIVE AUTO COMPANY, Clintonville, Wisconsin
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3

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- 1** *You add to our Research.* In diagnosing a set of brakes, we increase by one more truck or bus our thousands of case histories. Thus we build first-hand information on brake-behavior and lining-needs under every kind of service. In the end, it all helps your jobber recommend exactly the proper Grey-Rock lining.
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Simplicity
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SIoux DUAL ACTION VALVE SEAT GRINDER

With this amazing new SIOUX Tool...designed **especially** for high speed valve-seat grinding...the hardest valve seats made can now be ground to a perfect mirror finish, properly centered, in almost unbelievable quick time. So simple and fool-proof that an inexperienced man can do an expert job, easily and quickly.

Saves 75% of the time required by other methods. (A demonstration will **prove** that!) No delicate adjustments of any kind. Fits all blocks without attachments. Reaches the last seat under the dash...**easily and with perfect grinding control.**

Accurate within .0005 ($\frac{1}{2}$ thousandth). Its dual action and high speed sets up a new standard of fast-cutting and precision performance. Grinds **all** hardened valve seats and regular seats of all types. Built up to traditional SIOUX standards of quality and stamina.

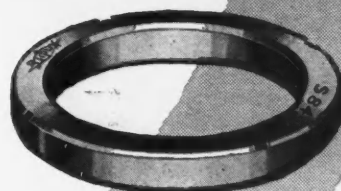
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ARE AVAILABLE IN
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RANGING FROM 7,000 POUNDS
TO 16,000 POUNDS

One-Piece Seamless Tubing
Cambered or Not
(As Specified)

Free from Welds
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Spring seats with or without lugs for
radius rod attachment.

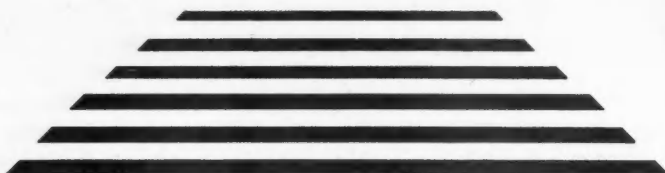
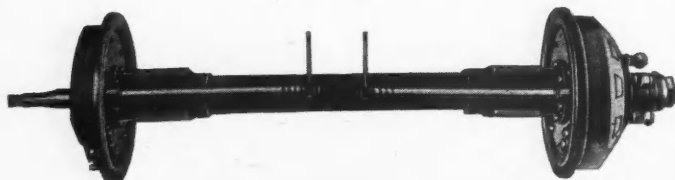
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A complete line for
TRACTORS and TRAILERS
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for
MOTOR TRUCKS and BUSES

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FEBRUARY, 1934

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● Thirty years of constant effort to always produce better universal joints — Thirty years of consistent specialization have earned a well deserved position in the industry.

Ask the Fleet Maintenance Man

He is the man who insists upon safe, low-cost ton-miles. He's the man who insists upon uninterrupted service and clean haulage records. He knows Blood Ton-Safe Universal Joints will do their part on any job.

... Then Ask Us
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**BLOOD BROTHERS
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ALLEGAN, MICHIGAN

THE COMMERCIAL CAR JOURNAL

YOU DEMANDED THIS TIRE

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Strength for heavy loads. **Stamina** for long pulls with speed. **Toughness** to transmit the full power of the engine to the road. **Dependable** for uninterrupted service. **Traction** for more power and safety. **Endurance** and **Long Mileage** for economy.

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TRUCK AND BUS TIRES

Money savers

Here is the tire that truck and bus operators have wanted. Goodyear built it. It is constructed to meet the demands of long, hard, strenuous service.

In this tire Goodyear engineers give you:

- **Patented Supertwist Cord construction**—up to 61% greater strength—and come-back. This means longer tire life, more miles.
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- **Improved high shoulder tread shape**—flat, wide, road contact means longer wear, better traction.
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- **Greater traction**—The famous Goodyear All-Weather tread provides maximum traction.

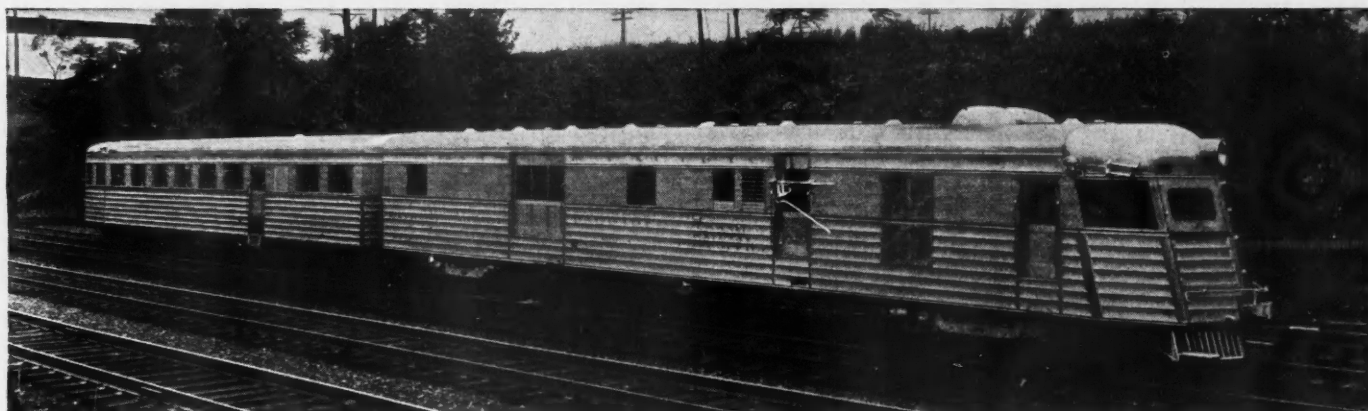
Goodyear tires are Money Savers. They save you money because for these exclusive Goodyear features you pay no premium.

See the Goodyear dealer near you.

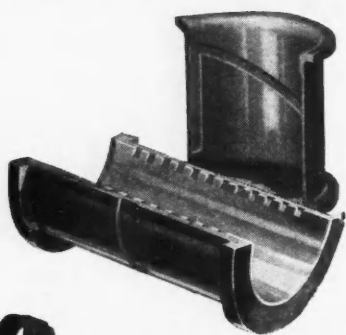
More tons are hauled on Goodyear Tires than on any other kind.



MODERN TRANSPORTATION RELIES ON FEDERAL-MOGUL BEARINGS



NEW BUDD RAIL CAR — POWERED WITH TWO AMERICAN-LA FRANCE MOTORS— USES FEDERAL-MOGUL BEARINGS



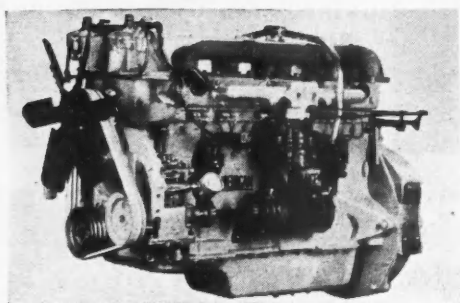
Zip! There she goes—cleaving the air like a knife—hugging the ground like a whippet at full stride—streamlined, light-weight, air-conditioned—speeding along quietly and dependably.

When Texas & Pacific wanted a sensational, new, 2-car train in stainless steel, they went to the Edward G. Budd Manufacturing Company.

When Budd wanted power for the unit, they went to American-La France.

And when American-La France wanted bearings for their 12-cylinder, 240 h.p. motors, they came to Federal-Mogul, just as the majority of leading automotive manufacturers have done for over 30 years!

Federal-Mogul bronze-back, babbitt-lined crankshaft bearings, and Federal-Mogul connecting rod babbitt were used in these American-LaFrance motors. Running on an express train schedule, an unusual situation in the delivery of new equipment of this kind, this 2-car train made the 3,000-mile trip from Philadelphia to Fort Worth, Texas, and arrived with all equipment clicking smoothly and ready for continuous service.



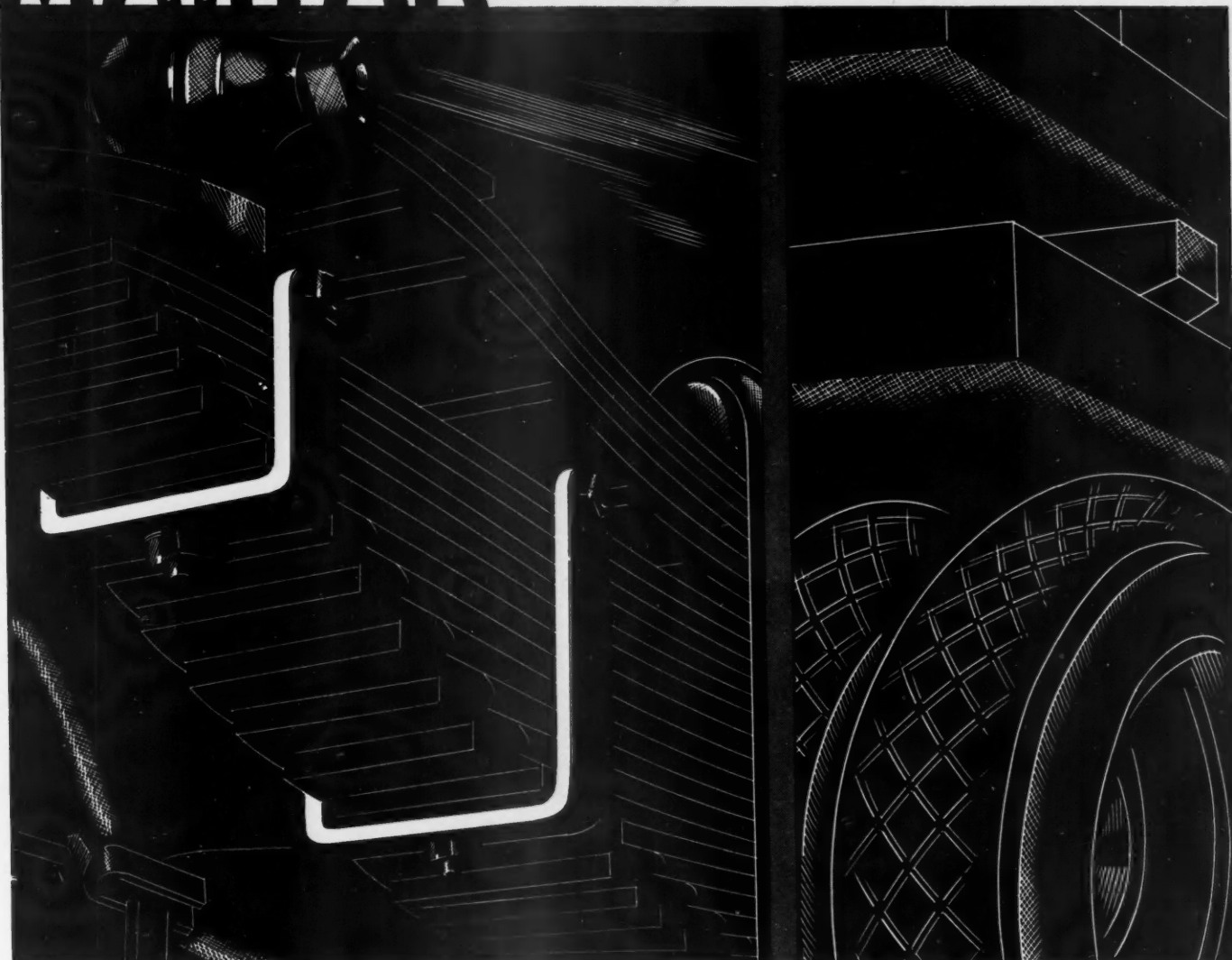
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CRANKSHAFT BEARINGS • PISTON PIN BUSHINGS
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FLEET OWNERS and operators of heavy-duty automotive equipment have found a way to maintenance savings. They are using Texaco Marfak for the grease-lubricated bearings that take the shocks of traffic and the pounding grind of service.

Texaco Marfak lasts longer. There is an actual economy in time and material. Fewer applications are required and a greater protection against wear is assured. There is nothing like it. Operators report savings of from thirty to fifty per cent in maintenance expense.

Texaco Marfak Grease, Texaco Motor Oil, Texaco *Fire-Chief* Gasoline and other Texaco automotive products are available in all our 48 States. Write The Texas Company. Ask about Texaco Products and Texaco cooperative engineering service.

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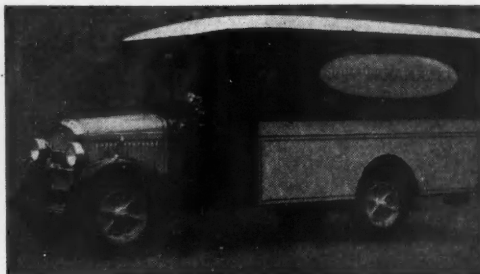
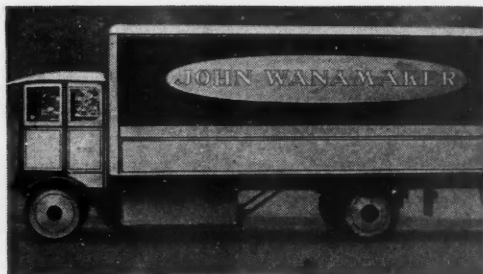
LUBRICANTS.





Making a better finish for trucks... this is the Drying-Time Machine. On to a freshly-painted, revolving plate-glass disk flows a stream of sand. After the paint dries, the plate is turned upside down and tapped. Some sand drops off. A stiff brush removes more. From the adherence of the sand to the plate are calculated the points of varying dryness—the dust-free, tack-free, and final drying times. With this and other instruments every property of DULUX Finish is determined and checked with scientific accuracy.

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Sleek and bright are the delivery trucks of the John Wanamaker Stores in Philadelphia. They are finished with du Pont Automotive DULUX, chosen as ideal after severest tests in service. DULUX has been used for several years to maintain the brilliant color and smart appearance of about 145 vehicles.

JUST SIMPLE THINGS—a plate-glass disk that spins like a top... and some fine sand that pours out like icing on a cake.

But they are most important to you and to du Pont chemists. They are instruments in the du Pont System of Pre-Testing, designed to assure you of a smarter-looking, more serviceable and more economical finish for your trucks—*Automotive DULUX*.

This particular test is for drying-time. It is only one of many others. Every property of Automotive DULUX Finish must meet established high

standards both in laboratory tests and in actual service. There's no guess-work here.

Many fleet owners have proved for themselves the superiority of DULUX. The John Wanamaker Stores in Philadelphia are one. DULUX provides a uniformly bright, glossy finish for their delivery trucks that keeps its smartness and brilliant color longer than any finish previously used. It is resistant to scratching, the harmful effects of gasoline and oil, and severe road wear. It permits a greater number of polishing operations without

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Assure these advantages for *your* trucks. Your own refinishing shop or an Authorized du Pont Refinisher can apply Automotive DULUX easily with spray or brush. If you desire, we will gladly help to work out standard DULUX specifications for your whole fleet. For further information, address E. I. du Pont de Nemours & Co., Inc., Dept. CC2, Finishes Division, Wilmington, Delaware.



AUTOMOTIVE DULUX

REG. U. S. PAT. OFF.

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FEBRUARY, 1934

THE COMMERCIAL CAR JOURNAL

WAUKESHA ENGINE

NOW USED IN STUDEBAKER 3 TO 4 TON TRUCK



This engine produces 110 horsepower at 2800 rpm. from 358 cubic inches of piston displacement. Studebaker adopted this power plant for a new super-speed, heavy-duty truck because it is the last word in economic power.

WAUKESHA MOTOR COMPANY
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What these men think about International Trucks and Service should interest all buyers and operators of motor trucks, for trucking contractors are seeking one end—the *lowest cost per ton-mile*. Hauling is all they have to sell—and their profits go up only as their costs go down.

Without the confidence of this great trucking industry International Harvester could not have become an outstanding truck manufacturer. Go where you please—in small or large cities—and you will find Internationals hauling their large share of the Trucking Industry's own loads.

Close figuring men who make a business of trucking know trucks as the stove man knows stoves—as the shoe man knows shoes. All makes of trucks are

known to them in terms of black or red ink. They can go back in their books for many years and show you which makes of trucks pay an operating profit—and which trucks do not. That is why they standardize so largely on Internationals. They don't guess. *They know!*

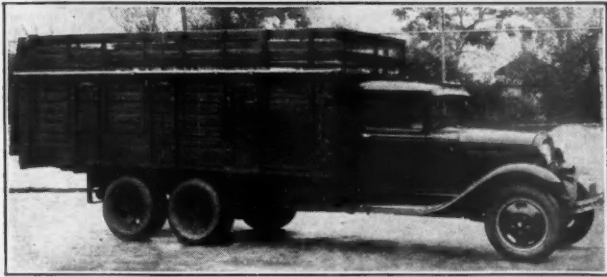
International's after-sale service is a most important consideration to the trucking industry. Standard International parts and standard International Service in 201 cities—the largest company-owned truck service organization in the world—play a vital part in the brilliant performance of International Trucks—in any business.

Whatever your business may be, do not buy any truck *of any size or for any purpose* until you know all that International offers you. Visit the International Branch or Dealer near you. Ask for demonstration. Sizes range from ½-ton to 7½-ton. Chassis prices from \$360 up, f.o.b. factory.

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PERFECTION THIRD AXLE UNITS



Dealers are getting the business of customers who need big truck capacity, by demonstrating the double economy of the standard 1½ ton chassis equipped with a Perfection E-B Third Axle Unit. Low initial investment and low operating costs combine with reliable performance to make it a most attractive proposition. Ask your distributor or write us for the facts.

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The Truck-Mated Third Axle
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156 WILSON AVE. NEWARK, N. J.



Commercial Car Journal Truck Specifications Are Corrected Monthly

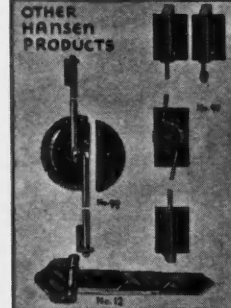
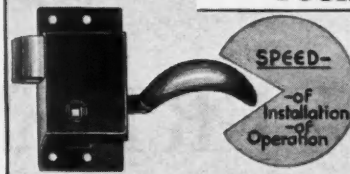
You can depend on the information they contain as being accurate and up to the minute. Use them to sell and use them to service trucks brought into your shop.

THE COMMERCIAL CAR JOURNAL

FOUR REASONS WHY HANSEN HARDWARE Is Better

EASIER and more economical to install—simple in design, requiring less assembly time and less installation cost—constantly modernized—durable under the most severe service conditions—Hansen Hardware is better!

A. L. HANSEN
MFG. CO.
5037 Ravenswood Ave.
CHICAGO



No. 55
Cab Lock

No. 60
Extension
Lock

No. 66
Refrigerator
Lock

No. 85
Regulator

No. 95
Slamming
Lock

No. 99
Rotary
Lock

No. 12
Hinge

HANSEN



BE READY with

Kingham
UNIVERSAL

PRODUCTS



- It's in the air—this stirring of new business. It may come fast or it may come slow. But it's coming.
- New equipment will help you get your share.
- Be ready with Kingham trailers, bodies and winches. Built with better engineering, materials and workmanship. Their appearance will give your business a "front" and their dependability will give you a good reputation.
- Our consulting service is free. Make use of it.
- Write for literature.

KINGHAM TRAILER CO., Inc.
235 E. Gaulbert St.
Louisville, Ky.



The star of the show was angered at the electrician. He explained it this way:
"She is peeved because when she was backstage making a quick change, she called for tights and I thought she said lights."

FEBRUARY, 1934

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**100
ADVANCE SHOWINGS
8,000,000 ATTENDANCE
AND 100,000 RETAIL
ORDERS**

*Chevrolet's unique announcement program
gets dealers off to flying start*

Seldom in automotive history has a new car gotten off to such a start as the 1934 Chevrolet. With the year less than a month old, with many cars scarcely even presented to the public, Chevrolet dealers already report well over 100,000 bona fide retail orders. This great send-off is the direct result of an innovation in announcement procedure. True to tradition, Chevrolet showed the automotive industry something new this year—a series of advance showings at key points, done on a scale never before attempted,

and drawing crowds conservatively estimated at 8,000,000. And what these crowds saw, they liked. In fact, everything indicates that the 1934 Chevrolet, with Knee-Action wheels, 80-horsepower engine, and all the other big advancements offered, will bring Chevrolet dealers another year of sales leadership. The public naturally prefers a car of which it can be said with complete confidence, "Drive it only 5 miles and you'll never be satisfied with any other low-priced car."

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN





ARE YOU WRESTLING WITH BATTERY MAINTENANCE COSTS ?

NOT all operators know that battery maintenance figures have a vital bearing on haulage costs. But it *is* significant that those who place the greatest emphasis on lowering their costs have standardized on Exide Batteries.

Countless millions of miles of service have proved the unfailing extra power, the

freedom from trouble, the longer, more dependable and economical service that Exide Batteries deliver. Throughout the entire nation, in light delivery cars and in the largest trucks, in the thick of city traffic and in hauling across country, Exide Batteries are demonstrating the meaning of this phrase—WHEN IT'S AN EXIDE, YOU START!

Exide BATTERIES

FOR EVERY TYPE TRUCK

EXIDE ENGINEERING SERVICE

Can help you cut battery maintenance costs. Conducted by trained and experienced battery engineers, this service is available to fleet operators free of charge.

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia

The World's Largest Manufacturers of Storage Batteries for Every Purpose

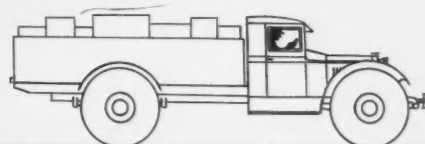
Exide Batteries of Canada, Limited, Toronto

PROOF OF SUPERIORITY

REO MOTOR CAR COMPANY
LANSING MICHIGAN

DEO

SPEEDWAGONS AND TRUCKS



When these jumbo tires were installed they were soon scuffed by the fenders and body on rough roads; the truck steered hard; it had good speed if you could ever get it rolling, but was sluggish on hills. So a rule-of-thumb mechanic changed the gear ratio. Now the truck has its old hill-climbing ability, but its top speed is so greatly reduced (even with the engine "wound up" to its limit), that the truck is late on almost every trip. Driver, customers, owner and NRA are all complaining.

Ask your Reo salesman to prove to you, with the Reo Slide Rule, the costly effects of using the wrong size tires.

QUALITY

FOUND ONLY IN THE NEW

White

AT \$1085

CHASSIS AT FACTORY

Never before has the low price field had a precision built truck with *quality* features like those found in this new White. At anything less than volume production this new White could not be built to sell under \$2000. The present low price represents today's greatest truck value. Buying *now* offers protection against the trend toward higher prices. Telephone the White Branch or dealer in your city for a demonstration. The White Company, Cleveland, Ohio.

COUNTERWEIGHTED, BALANCED CRANKSHAFT.

Low bearing pressures assure long life. Vibration dampener eliminates vibration at all speeds.

FULL FLOATING REAR AXLE.

Special White design. One piece housing. Spiral bevel gear reduction supported against deflections by straddle mounted pinion.

FOUR-WHEEL HYDRAULIC BRAKES WITH REACTION TYPE BOOSTER.

Gun iron drums. Slow wearing. Greater safety with automatically equalized pressure, assuring positive control under all conditions. Easy to apply and keep in adjustment.

8,000 TO 13,000 LBS. GROSS
Model 701 . . . 8,000 lbs. gross. Wheelbases 132-156 . . . \$1085. (Chassis at factory) . . . Model 702 . . . 13,000 lbs. gross. Wheelbases 132-156 . . . \$1185. (Chassis at factory) . . . Liberal terms can be arranged. Prices subject to change without notice.

FOUR SPEED TRANSMISSION.

Easy shifting. All gears nickel alloy steel. Double heat treated and case hardened for long life.

SAFETY SPRINGS. Double wrapped eyes for safety. Large capacity. Helper springs in rear for severe operation and easy riding.

75 H. P. . . . 6 CYLINDER ENGINE . . . 240 cubic inches.

White designed and built L-head. Brilliant, speedy, flexible performance with unusual economy. Full pressure lubrication. Rifle drilled passages to main bearings, connecting rods and wrist pins.

STELLITE VALVE SEATS . . .

for the first time in a low-priced truck, not pressed in but *screwed down* and *doweled*. Records show that heavy Whites have operated unbelievably long mileages without tappet adjustments and without valve regrinding.

THE NEW CHASSIS IS A TYPICAL WHITE

in its sturdy construction. The rugged frame is 7 inches deep with wide flange and heavy cross members gusseted and riveted in place. Every detail is designed for accessibility and maintenance economy.



IT'S A *White* THROUGH AND THROUGH



"SHOW-DOWN" PLAN SHOWS WHY DODGE TRUCKS SAVE GAS...OIL...TIRES...REPAIRS! DODGE NOW PRICED WITH LOWEST...

**No Wonder Thousands
say..."My Next Truck
Will Be a Dodge!"**

THERE is no mistaking Dodge extra value in the low-price field when you check up for yourself feature-by-feature. Thousands have made an out-and-out, "Show-Down" comparison. The result is a gigantic swing of buyers to Dodge. Sales in the last four months have gained four times faster than the field.

Here is Dodge, priced with the lowest, yet leading the field in costly features by an almost unbelievable margin. And they are features that unquestionably save gasoline, oil, tires, and repair bills... such features of fine truck building as hydraulic brakes, oil filter, cast iron braking surfaces, full pressure lubrication, full floating rear axle, 4-bearing crankshaft, valve seat in-

serts, roller bearing universals... eighteen extra-value features in all.

Don't buy any truck till you compare it with Dodge. If you want a truck built to save money on repairs and running costs, go to the Dodge dealer and ask for the facts. Compare feature-by-feature, point-by-point. You'll wonder how Dodge can give you so much. You won't find any other truck with even half of the important gas-oil-tire-and-repair-saving features you want and you find in Dodge and at such a low price!

That's why Dodge sales are gaining four times faster than the field. Smart buyers simply find far greater value in Dodge Trucks —and Dodge is priced with the lowest.

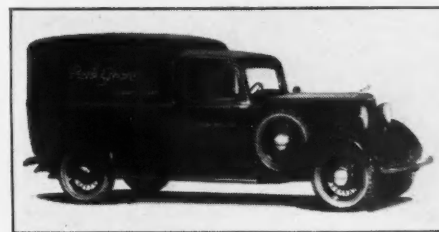
*All prices F. O. B. Factory, Detroit. Special equipment including Dual Wheels on 1½-Ton models extra. Prices subject to change without notice.



DODGE BROTHERS CORPORATION
Division of CHRYSLER CORPORATION
DETROIT, MICHIGAN



DODGE 1½-TON, CHASSIS—6-cyl. \$525*
—136 inch wheelbase. Has many recognized money-saving features.



DODGE COMMERCIAL PANEL—6 cyl. The handsomest panel truck ever seen on any road. Has Floating Power engine mountings, hydraulic brakes, valve seat inserts, and many other features. \$595*
Also, Heavy duty models up to 9 tons payload

Dependable **DODGE TRUCKS**

STUDEBAKER achieves *dominant value*

IN 3 TO 4 TON FIELD

New chassis offers more power and better axle than \$1795 would ever buy before

FOR super-speed, heavy-duty work on the highways—particularly in the most exacting tractor-trailer service—Studebaker has designed a new 3 to 4 ton chassis.

Under the hood is the marvelous Waukesha Hy-power engine, which is so efficient that with a displacement of 358 cubic inches it develops 110 horsepower at 2800 r.p.m.

The axle is of the Timken fifty eight thousand series—built for such heavy service that it is used in trucks selling at an average base list price seven hundred dollars in excess of that placed on this new Studebaker.

Frame, power brakes, transmission and all other features of this giant leader of the Studebaker line are in keeping with engine and axle. Never before has such power and capacity been available at such a low price.

A new standard in appearance is set for the truck industry by strong, smooth-flowing stream lines that spell pride of possession and prestige for the operator.

Don't buy any truck chassis priced between \$1500 and \$3500 until you see and demonstrate this epoch-making Studebaker product.



PERFORMANCE
POWER
PRIDE
PRESTIGE
at low
PRICE



A Handsome Brute THIS
STUDEBAKER

ANCE

R